China Biologic Products Holdings, Inc.
Form 20-F
March 06, 2019

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, DC 20549

FORM 20-F

(Mark One)

..REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR 12(g) OF THE SECURITIES EXCHANGE ACT OF 1934

OR

x ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2018

OR

..TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

OR

¨ SHELL COMPANY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

Date of event requiring this shell company report _____

For the transition period from _____ to _____

Commission File No. 001-34566

CHINA BIOLOGIC PRODUCTS HOLDINGS, INC.

(Exact name of Registrant as specified in its charter)

N/A

(Translation of Registrant's Name Into English)

Cayman Islands

(Jurisdiction of Incorporation or Organization)

18th Floor, Jialong International Building, 19 Chaoyang Park Road
Chaoyang District, Beijing 100125
People's Republic of China

(Address of principal executive offices)

Bing Li, Chief Executive Officer
Telephone: +86 (10) 6598-3111
18th Floor, Jialong International Building, 19 Chaoyang Park Road
Chaoyang District, Beijing 100125
People's Republic of China

(Name, Telephone, E-mail and/or Facsimile number and Address of Company Contact Person)

Securities registered or to be registered pursuant to Section 12(b) of the Act.

Title of each class	**Name of each exchange on which registered**
Ordinary Shares, par value $0.0001 per share	Nasdaq Global Select Market
Preferred Share Purchase Rights	Nasdaq Global Select Market

Securities registered or to be registered pursuant to Section 12(g) of the Act: None

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act: None

Indicate the number of outstanding shares of each of the Issuer's classes of capital or common stock as of the close of the period covered by the annual report: 39,361,616 ordinary shares, par value $0.0001 per share, as of December 31, 2018.

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

x Yes ¨ No

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934.

¨ Yes x No

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was

required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

x Yes ¨ No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files).

x Yes ¨ No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or an emerging growth company. See the definitions of “large accelerated filer,” “accelerated filer,” and “emerging growth company” in Rule 12b-2 of the Exchange Act.

Large Accelerated Filer x Accelerated Filer ¨

Non-Accelerated Filer ¨ Emerging growth company ¨

If an emerging growth company that prepares its financial statements in accordance with U.S. GAAP, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards† provided pursuant to Section 13(a) of the Exchange Act. ¨

† The term “new or revised financial accounting standard” refers to any update issued by the Financial Accounting Standards Board to its Accounting Standards Codification after April 5, 2012.

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing:

U.S. GAAP x	International Financial Reporting Standards as issued by the International Accounting Standards Board ¨	Other ¨

If “Other” has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow.

¨ Item 17 ¨ Item 18

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

¨ Yes x No

(APPLICABLE ONLY TO ISSUERS INVOLVED IN BANKRUPTCY PROCEEDINGS DURING THE PAST FIVE YEARS.)

Indicate by check mark whether the registrant has filed all documents and reports required to be filed by Sections 12, 13 or 15(d) of the Securities Exchange Act of 1934 subsequent to the distribution of securities under a plan confirmed by a court.

¨ Yes ¨ No

Annual Report on Form 20-F

Year Ended December 31, 2018

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Special Note Regarding Forward Looking Statements

In addition to historical information, this report contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. We use words such as “believe,” “expect,” “anticipate,” “project,” “target,” “plan,” “optimistic,” “intend,” “aim,” “will” or sim expressions which are intended to identify forward-looking statements. Such statements include, among others, those concerning market and industry growth and demand and acceptance of new and existing products; expectations regarding governmental approvals of our new products; any projections of sales, earnings, revenue, margins or other financial items; any statements of the plans, strategies and objectives of management for future operations; any statements regarding future economic conditions or performance; as well as all assumptions, expectations, predictions, intentions or beliefs about future events. You are cautioned that any such forward-looking statements are not guarantees of future performance and involve risks and uncertainties, as well as assumptions, which, if they were to ever materialize or prove incorrect, could cause the results of our company to differ materially from those expressed or implied by such forward-looking statements. Risks and uncertainties that could cause actual results to differ materially from those anticipated include risks related to, among others, our ability to overcome competition from local and international pharmaceutical enterprises; decrease in the availability, or increase in the cost, of plasma; failure to renew plasma collection permits for plasma collection stations; failure to meet the GMP standard or other mandatory requirements for any of our facilities; failure to obtain PRC governmental approval to increase retail prices of certain of our biopharmaceutical products; loss of key members of our senior management; and unexpected changes in the PRC government’s regulation of the biopharmaceutical industry in China, or changes in China’s economic situation and legal environment. Additional disclosures regarding factors that could cause our results and performance to differ from results or performance anticipated by this report are discussed in “Item 3.D. Key Information—Risk Factors”.

Readers are urged to carefully review and consider the various disclosures made by us in this report and our other filings with the SEC. These reports attempt to advise interested parties of the risks and factors that may affect our business, prospects, financial condition and results of operations. The forward-looking statements made in this report speak only as of the date hereof and we disclaim any obligation, except as required by law, to provide updates, revisions or amendments to any forward-looking statements to reflect changes in our expectations or future events.

Use of Certain Terms

Except as otherwise indicated by the context and for the purposes of this report only, references in this report to:

- “China Biologic,” “we,” “us,” the “Company” or “our” are to China Biologic Products Holdings, Inc., an exempted company incorporated under the laws of the Cayman Islands, and, unless the context requires otherwise, its direct and indirect subsidiaries;

- "China" or "PRC" are to the People's Republic of China, excluding, for the purposes of this report only, Taiwan and the special administrative regions of Hong Kong and Macau;
- "Exchange Act" are to the Securities Exchange Act of 1934, as amended;
- "GMP" are to good manufacturing practice;
- "Guizhou Taibang" are to Guizhou Taibang Biological Products Co., Ltd., a PRC company indirectly wholly owned by us, formerly known as Guiyang Qianfeng Biological Products Co., Ltd.;
- "Health Forward" are to Health Forward Holding Limited, a Hong Kong company wholly owned by us;
- "Huitian" are to Xi'an Huitian Blood Products Co., Ltd., a PRC company in which we hold an indirect minority equity interest;
- "MDMEL" are to Medical Device Manufacturing Enterprise License;
- "Nasdaq" are to the Nasdaq Stock Market;
- "NDRC" are to the National Development and Reform Commission of the PRC;
- "NHC" are to the National Health Commission of the PRC, formerly known as the PRC Ministry of Health, or the PRC National Health and Family Planning Commission;
- "NMPA" are to the National Medical Products Administration of the PRC, formerly known as China Food and Drug Administration;
- "PMPA" are to the provincial counterpart of the NMPA;
- "RMB" are to the legal currency of China;
- "SAFE" are to the State Administration of Foreign Exchange of the PRC;
- "SEC" are to the Securities and Exchange Commission;
- "Securities Act" are to the Securities Act of 1933, as amended;
- "Shandong Taibang" are to Shandong Taibang Biological Products Co., Ltd., a PRC company indirectly majority owned by us;
- "Taibang Biological" are to Taibang Biological Ltd., a British Virgin Islands company wholly owned by us, formerly known as Logic Express, Ltd.;
- "Taibang Holdings" are to Taibang Holdings (Hong Kong) Limited, a Hong Kong company indirectly wholly owned by us, formerly known as Logic Holdings (Hong Kong) Limited;
- "TianXinFu" are to TianXinFu (Beijing) Medical Appliance Co., Ltd., a PRC company indirectly majority owned by us since January 1, 2018;
- "U.S. dollars", "USD" or "$" are to the legal currency of the United States; and
- "Xinjiang Deyuan" are to Xinjiang Deyuan Bioengineering Co., Ltd., a PRC company with which we entered into cooperation agreements to purchase source plasma.

PART I

ITEM 1. IDENTITY OF DIRECTORS, SENIOR MANAGEMENT AND ADVISERS

Not applicable.

ITEM 2. OFFER STATISTICS AND EXPECTED TIMETABLE

Not applicable.

ITEM 3. KEY INFORMATION

A. Selected Financial Data

Selected Consolidated Financial Data

The selected consolidated statement of comprehensive income data for 2018, 2017 and 2016 and the selected balance sheet data as of December 31, 2018 and 2017 are derived from our audited consolidated financial statements included elsewhere in this report. The selected consolidated statement of comprehensive income data for 2015 and 2014 and the selected balance sheet data as of December 31, 2016, 2015 and 2014 are derived from our audited consolidated financial statements not included in this report.

The following selected historical financial information should be read in conjunction with our consolidated financial statements and related notes and the information contained in Item 5 “Operating and Financial Review and Prospects”.

For the Years Ended December 31, / As of December 31,				
2018	2017	2016	2015	2014

	(U.S. dollars in thousands, except per share data (U.S. dollars), Ordinary shares in Shareholders' equity (U.S. dollars), and share number)				
Revenues	466,878	370,407	341,169	296,458	243,252
Income From Operations	146,174	135,858	143,915	132,586	111,159
Net Income	147,969	82,236	128,793	114,106	96,113
Net Income attributable to the Company	128,058	67,943	104,780	89,043	70,917
Earnings Per Share					
Basic	3.54	2.40	3.79	3.40	2.85
Diluted	3.53	2.38	3.74	3.27	2.71
Total Assets	2,009,979	809,057	604,958	551,466	446,847
Total Current Liabilities	122,349	97,635	73,441	71,655	120,682
Total Long Term Liabilities	42,927	47,097	10,380	12,849	50,904
Ordinary Shares in Shareholders' Equity	4,162	2,987	2,943	2,884	2,787
Outstanding Shares	39,361,616	27,611,841	27,172,905	26,580,349	24,806,167
Total Shareholders' Equity attributable to the Company	1,772,050	598,192	462,200	382,343	212,087
Total Equity	1,844,703	664,325	521,137	466,962	275,262

B. Capitalization and Indebtedness

Not applicable.

C. Reasons for the Offer and Use of Proceeds

Not applicable.

D. Risk Factors

An investment in our ordinary shares involves a high degree of risk. You should carefully consider the risks described below, together with all of the other information included in this report, before making an investment decision. If any of the following risks actually occurs, our business, financial condition or results of operations could suffer. In that case, the trading price of our ordinary shares could decline, and you may lose all or part of your investment. You should read the section entitled "Special Note Regarding Forward Looking Statements" above for a discussion of what types of statements are forward-looking statements, as well as the significance of such statements in the context

of this report.

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RISKS RELATING TO OUR BUSINESS

The biopharmaceutical industry in China is strictly regulated and changes in such regulations, including banning or limiting plasma products, may have a material adverse effect on our operations, revenues and profitability.

We are principally engaged in the research, development, manufacture and sales of human plasma-based biopharmaceutical products in China. The biopharmaceutical industry in China is strictly regulated by the government. The regulatory regime regulates the process of administrative approval of medicine and its production, and includes laws and regulations such as the PRC Pharmaceutical Law, the Implementation Rules on the PRC Pharmaceutical Law and the Regulations on the Administration of Blood Products. These laws and regulations require entities producing plasma products to comply strictly with certain hygienic standards and specifications promulgated by the government. In the event that a plasma product is discovered to be not compliant with the government's hygienic standards and specifications, the health department may revoke its approval of such plasma product, or otherwise limit the use of such plasma product. Changes in these laws and regulations, including banning or limiting plasma products, could have a material adverse effect on our operations, revenues and profitability.

If the biopharmaceutical products we sell are found to be contaminated, our operation, revenues and profitability would be severely and adversely affected and we may be subject to civil and criminal liabilities.

The principal raw material of our existing and planned biopharmaceutical products is human source plasma, which, due to its unique nature, is subject to risks of contaminations and blood-borne diseases. In addition, current technology cannot eliminate entirely the risk of biological hazards inherent in plasma that are not currently known or for which screens are not currently commercially available, which could result in a widespread epidemic due to blood infusion. If any of our human donors is infected with diseases, then the plasma from such donor may be infected. Although we pre-screen all donors in order to ensure that they are not infected with HIV and hepatitis C and have not contracted liver diseases, screening tests may fail to identify and exclude from our supply the plasma from infected donors due to technical limitation and human errors. In addition, we purchase source plasma from Xinjiang Deyuan. Although we perform screening tests on the purchased plasma before putting it into production, we may fail to identify contaminated plasma from Xinjiang Deyuan due to the technical limitation and/or human errors. If any contaminated plasma is not appropriately screened out, our entire plasma supply for the relevant plasma collection station may become contaminated. If the plasma from our collection or purchased from Xinjiang Deyuan is contaminated and we sell biopharmaceutical products made from such plasma, we could be subject to civil liability from suits brought by consumers. Further, we may lose our registration and have criminal liability if we are found by the government to have been criminally negligent. If this occurs, our business, prospects, results of operations and financial condition will be materially and adversely affected.

If our supply of quality plasma is interrupted, our results of operations and profitability will be adversely affected. In addition, if we experience any shortage of raw materials in the future, we may be unable to proceed with our long-term business plan and we may be forced to curtail or cease our operations or further business expansion.

The production of plasma products relies on the supply of plasma of suitable quality. For 2018, 2017 and 2016, the cost of plasma we used for production accounted for approximately 80.4%, 80.9% and 81.5%, respectively, of total production cost of our plasma products. The supply and market prices of plasma may be adversely affected by factors such as heightened or new regulatory restrictions, higher living standards or outbreaks of diseases, any of which would affect our costs of production. We may not be able to pass on any resulting increase in costs to our customers and therefore any substantial fluctuation in supply or market prices of plasma may adversely affect our results of operations and profitability.

Our production volume, capacity utilization and future expansion are affected by a contraction in the supply of raw materials, especially plasma. In addition to the plasma collected from our own plasma collection stations, we also outsource plasma from Xinjiang Deyuan pursuant to a cooperation agreement entered into in August 2015 and supplemented by a supplementary agreement entered into in August 2018. Under these agreements, Xinjiang Deyuan had sold us more than 500 tonnes of source plasma in batches from August 2015 to August 2018 and agreed to sell to us no less than 500 tonnes of source plasma over a three year period from August 2018 to August 2021. As of December 31, 2018, 652 tonnes of plasma under these agreements had been delivered to us. We cannot assure you, however, that Xinjiang Deyuan will always deliver the source plasma on schedule or such plasma will always pass our quality inspection. In addition, there is a possibility that such contract might not be extended after August 2021. If we experience any shortage of plasma supply or fail to secure sufficient plasma supply for our production, we may not be able to fully utilize our production capacity or proceed with our expansion plans.

In addition to plasma products, we also manufacture and sell placenta polypeptide products, which use placenta as the main raw material, and regenerative medical biomaterial products, including artificial dura mater and spinal dura mater products, which use extracted collagen as the main raw material. If we experience any shortage of these raw materials in the future, our business and results of operations may also be adversely affected.

We may not be able to carry on our business if we lose any of the required permits and licenses.

Shandong Taibang, Guizhou Taibang, and Huitian, a company in which we hold an indirect minority equity interest, manufacture plasma products and are required to obtain from various PRC governmental authorities certain permits and licenses, including permits for pharmaceutical manufacturing and GMP certificates for each of our production facilities, as well as pharmaceutical distribution permits.

TianXinFu, a medical device company we acquired in January 2018, is also required to obtain certain permits and licenses, including registration certificate of medical devices and Medical Device Manufacturing Enterprise License (“MDMEL”) for its production activities, as well as Permit for Medical Device Operation.

We have obtained permits and licenses and GMP certificates as well as MDMEL required for the manufacturing and sales of our products. Our permits and licenses are subject to periodic renewal and/or reassessment by the relevant PRC governmental authorities, and the compliance standards may change from time to time. We intend to apply for the renewal of such permits and licenses when required by applicable laws and regulations. However, we cannot guarantee that we will be able to renew such permits and licenses in a timely manner, or at all. If we are unable to renew our permits and licenses or fail an inspection which would impair our permits and licenses, our business, prospects, financial condition and results of operations may be materially and adversely affected.

In addition, any changes in compliance standards, or any new laws or regulations that may prohibit or restrict our business activities or increase our compliance costs may adversely affect our operations and profitability.

We may fail to obtain, maintain or renew required licenses and permits for our plasma collection stations. In addition, if we fail to adequately monitor our plasma collection stations, follow proper procedures or comply with safety requirements, we may be subject to sanctions by the government, or civil or criminal liabilities.

We currently operate fifteen plasma collection stations (including two branch collection facilities) through Shandong Taibang and two plasma collection stations through Guizhou Taibang. Huitian, a company in which we hold a minority interest, operates three plasma collection stations in Shaanxi Province. To enable growth in our sales, we are seeking opportunities to build more plasma collection stations. The operation of plasma collection stations, however, is highly regulated and we cannot assure you that we will be able to obtain, maintain and renew the required licenses and permits for existing and new plasma collection stations in desirable locations or in a timely manner, if at all. For example, we have experienced difficulties and delays in renewing the business licenses and collection permits for five existing plasma collection stations we acquired in Guizhou Province. While we monitor our plasma intake procedures through frequent unscheduled inspections of our stations, there remain risks that our plasma collection stations may fail to comply with hygiene and procedural requirements for plasma screening, collection, storage and tracking. If we fail to comply with any of these requirements, we may lose our plasma collection permits or incur criminal liability if we are found by the government to have been criminally negligent. In the case of plasma contamination, we may also be subject to civil liability from suits brought by consumers of our biopharmaceutical products. In addition, failure to comply with hygiene and procedural requirements may cause harm to donors, who may contract diseases from other donors, among other things. Any such incident may subject us to government sanctions, or civil or criminal liabilities. If any of these events were to occur, our business, reputation and prospects would be materially and adversely affected.

Our operations, sales, profit and cash flow will be adversely affected if our plasma products fail to pass inspection in a timely manner.

The PRC regulatory authorities inspect each batch of our plasma products before we can ship it to our customers. The NMPA has quality standards which require the regulators to assess, among other things, the appearance, packing capacity, thermal stability, pH value, protein content and purity of the product. We must strictly comply with relevant rules and regulations throughout the lifecycle of each product, including plasma collection, delivery, production and packaging. Regulators typically take more than a month to inspect one batch of plasma products. The process begins when the regulator randomly selects samples of our products and delivers them to the PRC National Institute for the Control of Pharmaceutical and Biological Products, or NICBPB, for testing, and the process ends when the products are given final approval by NICBPB. In the event that the regulators delay the approval of or reject our products or change the requirements such that we are unable to comply, our operations, sales, profit and cash flow will be adversely affected.

Current or worsening economic conditions may adversely affect our business and financial condition.

We currently generate sufficient operating cash flows which provide us with significant working capital. However, any uncertainty arising out of economic conditions may affect our ability to manage normal relationships with our customers, suppliers and creditors and adversely affect our results of operations, cash flows and financial condition, or those of our customers, suppliers and creditors. Current or worsening economic conditions may adversely affect the ability of our customers to pay for our products, and curtail their spending on healthcare generally. This could result in a decrease in the demand for our products, declining cash flows, longer sales cycles, slower adoption of new technologies and increased price competition. These conditions may also adversely affect certain of our suppliers, which could cause a disruption in our production capacities. Such reductions and disruptions could have a material adverse effect on our business operations.

Our inability to successfully research and develop new biopharmaceutical products could have an adverse effect on our future growth.

We believe that the successful development of biopharmaceutical products can be affected by many factors. Products that appear to be promising in the early phases of research and development may fail to be commercialized for various reasons, including the failure to obtain the necessary regulatory approvals. In addition, the research and development cycle for any new medicine is a relatively lengthy process. In our experience, the process of conducting research and various tests on new products before obtaining a new medicine certificate from the NMPA and subsequent procedures may take approximately three to five years, or even longer. For example, in October 2017, we received from the NMPA approval for commercial manufacturing and the GMP certificate of human fibrinogen product, for which the pre-clinical research started in 2008 and the approval for Phase III clinical trials was received in 2012. We cannot assure you that our future research and development projects will be successful or that they will be completed within the anticipated time frame or budget. Also, we cannot guarantee that we will receive the necessary approvals from relevant authorities for the production of our newly developed products. Even if such products could be successfully commercialized, we cannot assure you that they will be accepted by the market as anticipated.

We do not have discretion to increase the prices of certain of our products, which are subject to the regional government tendering mechanism and/or reimbursement ceilings.

Prices of certain pharmaceutical products are subject to various price-related regulations in China. Although the NDRC removed the retail price ceilings for all drug products (except for anesthetics and category I antipsychotics) in China in 2015, the pricing of our plasma products is still subject to provincial and local tendering mechanisms where we compete with other manufacturers in the price and quality of products. Among our plasma products, tetanus immunoglobulin, Factor VIII and PCC are included on the life-saving EDL in most Chinese provinces, for which drug procurement was prioritized and the hospitals are allowed to directly purchase drugs from manufacturers through an on-line procurement process. Other plasma products such as albumin and IVIG and certain of our medical device products are subject to tendering process in most provinces. During the past two to three years, PRC central government implemented a series of healthcare reform measures, and regional governments adopted various forms of tendering policies accordingly. Although currently there is no standardized tendering rule across the country and the tendering prices for most of our products remain comparatively stable, some provinces may adopt a policy of on-line disclosure of tendering prices, which may narrow the differences in tenders among different provinces and make the tendering practice more uniform across the country. This may increase the price pressure since provinces intend to benchmark to the lowest nationwide prices. The relevant authorities may also set up tendering rules such as

centralized procurement to stimulate manufactures to cut prices in order to ensure their products being included in the regional procurement list or improve the procurement volume of their products.

In addition, retail prices of pharmaceutical products fully or partially covered under the national insurance system are also affected by the reimbursement ceilings set out in the National Reimbursement Drug List, or the NRDL, which may be adjusted by the NDRC from time to time. A new edition of the NRDL was launched in February 2017. Seven of our principal products (namely human albumin, IVIG, human rabies immunoglobulin, human tetanus immunoglobulin, factor VIII, PCC and human immunoglobulin) are included in the NRDL. Moreover, the reimbursable amount for each drug under the provincial drug reimbursement list is subject to each provincial social security funding situation and could be adjustable periodically. These reimbursement ceilings put pressure on the manufacturers' pricing of the relevant products. Similarly, certain of our medical device products are also subject to provincial or regional limitation on reimbursable amount. See "Item 4.B. Information on the Company—Business Overview—Business—Regulation" for further details.

Because of the tender process and the reimbursement ceiling for certain of our products, we do not have discretion to increase the prices we charge our customers and distributors for such products above certain levels. We may not be able to increase our prices even if the cost of manufacturing our products increases as a result of increases in the cost of raw materials or other costs, and, our revenue and profitability would be adversely affected. If the margin of any of these products becomes prohibitively low, we may stop manufacturing such product, which may further adversely affect our revenue and profitability.

Our ability to increase the prices of our products is limited by general market conditions and intense competition.

Our pricing practices may also be affected by the general market conditions and intense competition. To the extent the demand for our products declines or competition intensifies, we may decide to respond by reducing our prices in order to capture the declining market demand and maintain the competitiveness of our products. See also "Item 3.D. Key Information—Risk Factors—Risks Relating to Our Business—We are subject to intense competition and may encounter increased competition from both local and overseas pharmaceutical enterprises if PRC regulators relax the approval process for plasma products or international trade restrictions. A change in our competitive environment could adversely affect our profitability and prospects" below. If the margin of any of our products becomes prohibitively low, we may stop manufacturing such product, which may further adversely affect our revenue and profitability.

Our ability to distribute our products is limited by PRC healthcare reform measures.

During the past two to three years, the PRC government initiated a series of healthcare reform measures, including but not limited to the prohibition on drug sale mark-ups in public hospitals, the limitation on the ratio of drug sale revenue to total revenue in public hospitals, and the two-invoice policy in drug and medical device distribution channels.

Pursuant to the no mark-up policy of the central government, all public hospitals in China had cancelled the 15% mark-ups on drug sales by the end of 2017. Since then, we have seen a substantial drop in public hospitals' operational budgets, which has negatively impacted those hospitals' incentive to purchase drugs.

In addition, the central government requires the drug sales revenue of each public hospital to be no more than 30% of its total revenue. In order to comply with such rule, the hospitals implemented measures such as requiring doctors to prescribe drugs only in accordance with approved indications shown on the drug label. As most of our products have high unit prices, we have experienced a reduction in the purchase volumes of our products, in particular albumin and IVIG products, by a number of hospitals since the end of 2017. In 2019, the central government may implement a series of indicators for performance appraisal at hospital level to better monitor the effectiveness of treatment and efficiency of prescription, which might replace the single indicator of drug sales revenue percentage. These new

policies could possibly slow down the volume growth of our major products.

Also as part of the healthcare reform, the two-invoice policy system in the pharmaceutical and medical device supply chains was designed to limit the number of distribution layers between manufacturers and hospitals with the aim of stabilizing prices and enhancing transparency. The two-invoice policy for drugs has been formally implemented in all provinces in China and the implementation of such policy for medical devices has commenced in certain provinces. Many pharmaceutical and medical device manufacturers used to sell their products through multiple layers of distributors. Under the new two-invoice policy, manufacturers can only sell products to one layer of distributors (with one invoice issued), which then directly sell to the hospital customers (with the second invoice issued). As a result, many regional smaller distributors who have less access to hospital customers are no longer able to continue their businesses. This in turn intensifies competition among product manufacturers for access to competent large distributors. Our sales model for plasma products focuses on direct sales to hospitals and inoculation centers, which is complemented by distributor sales mostly with one layer of distributor between hospital and us, so our plasma business has been substantially in compliance with the two-invoice policy. However, the intensified competition partly caused by the implementation of the two-invoice policy in the plasma industry negatively impacted us in both the ex-factory price to distributors and sales volume in 2018. In addition, our placenta polypeptide product used to be sold through multiple layers of distributors to hospitals, and its sales volume shrank significantly in 2018. For TianXinFu, part of its medical device products have already been sold through only one layer of distributors to hospitals, and we will adjust our strategy when such policy for medical device is officially implemented in more regions to minimize the effects resulting therefrom, but we cannot ensure that there would not be a negative impact on us.

Furthermore, we cannot assure you that the government will not mandate more healthcare reform regulations that may have a negative impact on us. For example, at the end of 2018, NHC announced plans to create a national adjuvant drug list for treatments applied as supplements to initial therapies, and set up guidelines that could limit the sales of those drugs. Although we believe that most of our products are essential treatments to many diseases, we cannot assure you that our products would not be included in the regional or national adjuvant drug list. For example, our placenta polypeptide product has been included in many regional adjuvant drug lists and its sales volume has been negatively impacted. If our placenta polypeptide product is included in more provincial adjuvant drug lists, its sales volume may be further negatively impacted.

If reimbursement or other payment for our current or future products is reduced or modified in the PRC, including through the implementation of government-sponsored healthcare reform or other similar actions, cost containment measures, or changes to policies with respect to pricing, then our business could suffer.

Sales of our products depend, in part, on the extent to which the costs of our products are paid by public payers. These public payers mainly consist of local governments which reimburse the medicines and medical devices covered by the local reimbursement catalog. The local governments update the reimbursement catalog on a regularly basis and may remove certain medicines and medical devices from the reimbursement catalog. These public payers may also reduce the reimbursement amounts for certain medicines and medical devices on the reimbursement catalog. These measures by local governments may limit, reduce or eliminate payments for our products and adversely affect both pricing flexibility and demand for our products.

Legislation and regulations affecting reimbursement for our products may change at any time and in ways that may be adverse to us. We cannot predict the impact of these pressures and initiatives, or any negative effects of any additional regulations that may affect our business.

Some of our owned or leased properties have title defects or non-compliance, which could adversely affect our business operations.

Some of our owned or leased properties have title defects or non-compliance. For example, we use properties built on collectively owned rural land for two of our plasma collection stations. We are also in the process of obtaining the property ownership certificate for another one of our plasma collection stations. Although such title defects and non-compliance have not adversely affected our business operations, we cannot assure you that we will be able to rectify such defects and non-compliance in a timely manner or at reasonable costs, if at all. For example, under PRC laws, collectively owned rural land may not be used for commercial purposes and we may be required to vacate and seek other space to house our collection facilities. For the collection station built on collectively owned rural land, under the lease agreement for the collectively owned rural land among us, the local government and the economic collective which owns the land, the economic collective is required to assist us in securing legal rights to use such land. If the economic collective fails to perform its obligations under the lease agreement, or the lease agreement is deemed to be void, voidable or otherwise unenforceable, or if ownership disputes or claims regarding the land otherwise arise, we may be required to relocate our collection station. Any disputes or claims relating to our owned or leased properties or land or any efforts in securing alternative sites and properties could divert our resources and management's attention from our regular business operations. In addition, we may not be able to secure alternative sites and properties, if required, in a timely manner or at reasonable costs, which could adversely affect our business operations.

Our financial position and operations may be materially and adversely affected if our product liability insurance does not sufficiently cover our liabilities.

Under current PRC laws, manufacturers and vendors of defective products in China may incur liability for loss and injury caused by such products. Pursuant to the General Principles of the Civil Law of the PRC, or the PRC Civil Law, which became effective in 1987, a defective product that causes property damage or physical injury to any person may subject the manufacturer or vendor of such product to civil liability.

The Product Quality Law of the PRC, or the Product Quality Law, was enacted in 1993 and revised in 2000. The Product Quality Law was enacted to protect the rights and interests of end-users and consumers and to strengthen the supervision and control of the quality of products. Under the Product Quality Law, manufacturers who produce defective products may be subject to fines and production suspension, and in severe cases, be subject to criminal liability and may have their business licenses revoked.

The PRC Law on the Protection of the Rights and Interests of Consumers, or the Consumers' Rights Law, was enacted in 1993 to further protect the legal rights and interests of consumers in connection with the purchase or use of goods and services. All businesses, including our business, must observe and comply with the Consumers' Rights Law.

The Tort Liability Law of the PRC was enacted in December 2009, which imposes liability on manufacturers for damages caused by defects in their products. If the defects are caused by third parties such as transporters or storekeepers, manufactures may be entitled to claim for indemnification or contribution from such third parties for making compensation to the consumers.

We maintain two product liability insurance policies for sales in China for Shandong Taibang and Guizhou Taibang's products in the amount of $2.9 million (RMB20 million) each. We also maintain a product liability insurance policy for sales in China for TianXinFu's products in the amount of $0.29 million (RMB2 million). If our products are found to be defective and our insurance coverage is insufficient to cover a successful claim against us, our financial position and operations may be materially and adversely affected.

Product liability claims or product recalls involving our products could have a material adverse effect on our business.

Our business exposes us to the risk of product liability claims that are inherent in the manufacturing, distribution and sale of biopharmaceutical and medical device products. For example, plasma is a biological substance that is capable of transmitting viruses and pathogens, whether known or unknown. Therefore, our plasma and plasma products, if not properly collected, tested, pathogen-inactivated, processed, stored or transported, could cause serious disease and possibly death to patients. Further, there are viral and other infections of plasma which may escape detection using current testing methods and which are not susceptible to inactivation methods. Our other biopharmaceutical and medical device products are also required to be of very high quality as they are used in intravenous injections or surgeries. Any infection of disease by persons using our products could result in claims against us. Since our establishment in 2002, we have been subject to four lawsuits filed by patients who were treated with our products and received blood and/or plasma transfusions. In all of these four cases, we were ordered to contribute a portion of the compensation for the patients even though the courts did not find that our products were defective or caused the patients' illness. The required contribution by us was immaterial in these four cases. We cannot assure you that there will be no future claims against us or that we will always succeed in defending against such claims. Furthermore, the presence of a defect in a product could require us to carry out a recall of such product.

A product liability claim, regardless of merit or eventual outcome, or a product recall could result in substantial financial losses, civil and criminal liabilities, administrative sanctions, revocation of business and product permits and licenses, negative reputational repercussions and an inability to retain customers. If our products are found to be defective and our insurance coverage is insufficient to cover a successful claim against us, our financial position and operations may be materially and adversely affected.

We are subject to intense competition and may encounter increased competition from both local and overseas pharmaceutical enterprises if PRC regulators relax the approval process for plasma products or international trade restrictions. A change in our competitive environment could adversely affect our profitability and prospects.

We face intense competition from local and foreign entities that manufacture and sell products that compete with ours in China. These competitors may have more capital, better research and development resources, expanded manufacturing and marketing capabilities and more experience than we do. The plasma-based biopharmaceutical manufacturing industry in China is highly regulated, and although we believe that compliance with the regulatory requirements pose a competitive barrier to enter into the Chinese market, over time, however, there may be new entrants. If the government relaxes these restrictions and allows more competitors to enter into the market, these competitors may have more capital, better research and development resources, more manufacturing and marketing capability and experience than us. Our operating results and financial condition may be adversely affected if competition intensifies, competitors reduce prices to gain market share, or competitors develop new products having comparable medicinal applications or therapeutic effects which are more effective or less costly than ours.

In addition, we also face competition from imported products. Since 2009, there has been a substantial increase in volume of imported human albumin in China, which competes in domestic human albumin market. In addition, we compete with foreign biopharmaceutical manufacturers that set up production facilities in China and compete directly with us. The increased supply of both domestic and foreign biopharmaceutical products in China may result in lower sales or lower prices for our products. We cannot assure you that we will remain competitive or that our profitability and prospects will not be adversely affected.

We depend heavily on key personnel, and turnover of key employees and senior management could harm our business.

Our success, to a certain extent, is attributable to the expertise and experience of our senior management and key research and technical personnel who carry out key functions in our operation. If we lose the service of any of our senior management or key research or technical personnel or fail to attract additional personnel with suitable experience and qualification, our business operations and research capability may be adversely affected.

We have a secondment agreement with the Shandong Institute, which is expected to terminate upon its future privatization, for certain of our employees. If the secondment agreement is breached or terminated, it could have an adverse effect on our operations and on our financial results.

Shandong Institute provided us with 27 of our employees, including certain key management personnel, out of our total of approximately 2,187 employees as of December 31, 2018, pursuant to a secondment agreement dated October 28, 2002, between Shandong Taibang and the Shandong Institute. Pursuant to the secondment agreement, we are responsible for the salaries of these employees, as well as for their social benefits such as insurance. Our secondment agreement with the Shandong Institute will expire on the earlier of October 2032 or the privatization of the Shandong Institute, which was originally scheduled to occur before the end of 2008. However, the privatization of the Shandong Institute has been delayed indefinitely due to delay by the Shandong Department of Health in implementing the privatization plan. Upon expiration or termination of the secondment agreement, we plan to hire the seconded employees directly. However, we cannot assure you that all of the employees will accept our employment offers at that time. Guangli Pang, Shandong Taibang's chief executive officer, is employed through the secondment agreement. Although none of our seconded employees have indicated that they do not plan to continue working for us after the privatization, if the secondment agreement is terminated or expires and we are unable to hire those employees or their replacements on time, our operations, as well as our financial results, may be materially and adversely affected.

We may not realize the anticipated benefits of our acquisition of TianXinFu.

We may face unknown challenges in integrating the business of TianXinFu with our existing business to realize the anticipated benefits of our acquisition of TianXinFu. For example, we may not be able to effectively utilize TianXinFu's sales network and marketing expertise to promote the sale of our existing plasma products due to the sales team's lack of familiarity with our plasma products and the plasma markets or due to any loss of key sales personnel. Furthermore, we may not be able to introduce our plasma products as perioperative therapeutics to surgical departments covered by TianXinFu as planned. If we fail to realize the anticipated benefits from this acquisition, our liquidity, results of operations, financial condition and share price may be adversely affected. In addition, at times, the attention of certain members of our management and resources may be focused on the integration of the businesses and diverted from day-to-day business operations, which may disrupt our business.

The acquisition of TianXinFu may negatively impact our financial results.

The acquisition of TianXinFu has been accounted for under the acquisition method of accounting and the assets acquired and liabilities assumed have been recorded at their respective fair values at the acquisition date. The excess of the purchase price over those fair values has been recorded as goodwill. If the value of goodwill or intangible assets becomes impaired in the future, we may incur material charges relating to such impairment. Such a potential impairment charge could have a material impact on our operating results. In addition, a portion of our continuing revenues and earnings per share are derived from the operation of TianXinFu. Therefore, any negative impact on the operations of TianXinFu could potentially harm our operating results.

We have limited experience in operating the business of regenerative medical biomaterial products.

We have been principally engaged in the research, development, manufacturing and sales of plasma products in China, while our newly acquired business of TianXinFu focuses on the manufacturing and sale of regenerative medical biomaterial products, mainly artificial dura mater and spinal dura mater products. Our lack of familiarity with the regenerative medical biomaterial industry may make it difficult for us to anticipate the demands and preferences in the market and to develop products that meet the requirements and preference of customers in a timely and cost-effective manner, or at all. As a result, the operating results of TianXinFu may be less desirable than our expectations, which in turn may negatively impact our overall financial position.

Future acquisitions may have an adverse effect on our ability to manage our business.

Selective acquisitions form part of our strategy to further expand our business. If we are presented with appropriate opportunities, we may acquire additional companies, products or technologies. Future acquisitions and the subsequent integration of new companies into ours would require significant attention from our management. The diversion of our management's attention and any difficulties encountered in any integration process could have an adverse effect on our ability to manage our business. Future acquisitions would expose us to potential risks, including risks associated with the integration of new operations, technologies and personnel, unforeseen or hidden liabilities, the diversion of resources from our existing businesses and technologies, the inability to generate sufficient revenue to offset the costs

and expenses of acquisitions, and potential loss of, or harm to, relationships with employees, customers and suppliers as a result.

We may lose our competitive advantage and our operations may suffer if we fail to prevent the loss or misappropriation of, or disputes over, our intellectual property or proprietary information.

We regard our intellectual property, particularly our patents and trade secrets, to be of considerable value and importance to our business and our success. We rely on a combination of patent, trademark and trade secret laws, as well as confidentiality agreements to protect our intellectual property rights. Failure to protect our intellectual property rights could harm our brands and our reputation, and adversely affect our ability to compete effectively. Further, enforcing or defending our intellectual property rights, including our patents and trade secrets, could result in the expenditure of significant financial and managerial resources.

As of December 31, 2018, we held 87 issued patents and had 30 pending patent applications in China for certain manufacturing processes and packaging designs. We may not be able to successfully obtain the approval of the PRC authorities for our patent applications. As of December 31, 2018, we also had 13 trademarks registered in China.

While we are not aware of any infringement on our intellectual property and we have not been notified by any third party that we are infringing on their intellectual property, our ability to compete successfully and to achieve future revenue growth will depend, in significant part, on our ability to protect our proprietary technologies and operate without infringing upon the intellectual property rights of others. Policing unauthorized use of proprietary technologies is difficult and expensive. The steps we have taken may not be adequate to prevent unauthorized use of our intellectual property rights.

The legal regime in China for the protection of intellectual property rights is still at its early stage of development. Despite many laws and regulations promulgated and other efforts made by China over the years to tighten up its regulation and protection of intellectual property rights, private parties may not enjoy intellectual property rights in China to the same extent as they would in many more developed countries, including the United States, and the enforcement of such laws and regulations in China has not achieved the levels reached in those countries. The administrative agencies and the court system in China are not well-equipped to deal with violations or handle the nuances and complexities between compliant technological innovation and noncompliant infringement.

We also rely on confidentiality agreements with our management and employees to protect our confidential proprietary information. However, the protection of our intellectual property may be compromised as a result of:

- departure of any of our management members or employees in possession of our confidential proprietary information;

- breach by such departing management member or employee of his or her confidentiality and non-disclosure undertaking to us;
- infringement by others of our proprietary information and intellectual property rights; or
- refusal by relevant regulatory authorities to approve our patent or trademark applications.

Any of these events or occurrences may have a material adverse effect on our operations.

We cannot assure you that the steps taken by us to protect our intellectual property rights will be adequate or that third parties will not infringe on or misappropriate our patents, trademarks, confidential proprietary information or similar proprietary rights. Litigation may be necessary to enforce our intellectual property rights and the outcome of any such litigation may not be in our favor. Given the relative unpredictability of China's legal system and potential difficulties enforcing a court judgment in China, we cannot guarantee that we would be able to halt any unauthorized use of our intellectual property through litigation in a timely manner.

Furthermore, we cannot assure you that other parties will not assert infringement claims against us, and we may have to pursue litigation against other parties to assert our rights. Any such claim or litigation could be costly and we may lack the resources required to defend against such claims. If we are unsuccessful in defending against such infringement claims, we may be required to pay damages, modify our products or suspend the production and sale of such products. We cannot guarantee that we will be able to modify our products on commercially reasonable terms.

Finally, any event that would jeopardize our proprietary rights or any claims of infringement by third parties could have a material adverse effect on our ability to market or sell our brands, and profitably exploit our products.

A disruption in the supply of utilities, fire or other calamity at our manufacturing plant would disrupt production of our products and adversely affect our business.

Our plasma products are manufactured at our production facilities located in Tai'an, Shandong Province and Guiyang, Guizhou Province in China. TianXinFu's manufacturing of regenerative medical biomaterial products primarily operates in Beijing. While we have not in the past experienced any calamities which disrupted production, any disruption in the supply of utilities, in particular, electricity or power supply, or any outbreak of fire, flood or other calamity resulting in significant damage at our facilities would severely affect our production and have a material adverse effect on our business, financial condition and results of operations.

We maintain insurance policies covering losses with respect to damages to our properties and products. We do not have insurance coverage for most of our inventories of raw materials or business interruption. We cannot assure you that our insurance would be sufficient to cover all of our potential losses.

If we do not maintain strong financial controls, investor confidence in us may decline and our stock price may decline as a result.

As required by Section 404 of the Sarbanes-Oxley Act of 2002, the SEC adopted rules requiring every public company to include a management report on such company's internal control over financial reporting in its annual report, which must also contain management's assessment of the effectiveness of our company's internal control over financial reporting. In addition, the independent registered public accounting firm auditing the financial statements must also attest to the operating effectiveness of our company's internal controls.

A report of our management and attestation by our independent registered public accounting firm is included in our annual report on Form 20-F for the year ended December 31, 2018. Our management has concluded that our internal controls over financial reporting as of December 31, 2018 were effective. We have in the past discovered, and may in the future discover, material weakness in our internal controls. For example, we identified material weaknesses related to review controls on the accounting for income taxes and derivative instrument valuation as described under Item 9A of our annual report on Form 10-K for year ended December 31, 2010, which were subsequently remediated in 2011 as described under Item 9A of our annual report on Form 10-K for the year ended December 31, 2011. However, we cannot guarantee that these remedies will continue to be effective. Failure to achieve and maintain an effective internal control environment could result in us not being able to accurately report our financial results, prevent or detect fraud or provide timely and reliable financial and other information pursuant to the reporting obligations we have as a public company, which could have a material adverse effect on our business, financial condition and results of operations. This could reduce investors' confidence in our reported financial information, which in turn could result in lawsuits being filed against us by our shareholders, otherwise harm our reputation or negatively affect the trading price of our ordinary shares.

We are treated as a U.S. corporation for U.S. federal tax purposes.

Pursuant to Section 7874 of the U.S. Internal Revenue Code of 1986, as amended (the "Code"), we are treated as a U.S. corporation for U.S. federal income tax purposes. As a result, we are subject to U.S. federal corporate income tax as if we were incorporated in the United States. U.S. Holders, as defined below, should consult their tax advisers regarding the U.S. federal income tax consequences of holding our ordinary shares in their particular circumstances.

The recently enacted tax reform bill could adversely affect our business and financial condition.

On December 22, 2017, President Trump signed into law the "Tax Cuts and Jobs Act," or the TCJA, which significantly amends the Code. The TCJA, among other things, reduces the U.S. corporate tax rate from a top marginal rate of 35% to a flat rate of 21%, limits the tax deduction for interest expense to 30% of adjusted earnings, eliminates net operating loss carrybacks, imposes a tax on offshore earnings at reduced rates regardless of whether they are repatriated, allows immediate deductions for certain new investments instead of deductions for depreciation expense over time, and modifies or repeals many business deductions and credits. We continue to examine the impact these changes may have on our business. Notwithstanding the reduction in the corporate income tax rate, the overall impact of the TCJA is uncertain and our business and financial condition could be adversely affected. The impact of the TCJA on holders of our ordinary shares is also uncertain and could be adverse. This Form 20-F does not discuss the TCJA or the manner in which it might affect us or our shareholders. We urge our shareholders to consult with their legal and tax advisers with respect to the TCJA and the potential tax consequences of investing in our ordinary shares.

RISKS RELATING TO DOING BUSINESS IN CHINA

Changes in China's political or economic situation could harm us and our operating results.

Economic reforms adopted by the PRC government have had a positive effect on the economic development of the country. The reformed economic infrastructure and legal systems, however, may be subject to abrupt adjustments by the government. These adjustments, especially in the following areas, could either benefit or damage our operations and profitability:

- Level of government involvement in the economy;
- Control of foreign exchange;

- Methods of allocating resources;
- International trade restrictions; and
- International conflict.

The PRC economy differs from the economies of most member countries of the Organization for Economic Cooperation and Development, or the OECD, in many ways. For example, state-owned enterprises still constitute a large portion of China's economy, and weak corporate governance and the lack of a flexible currency exchange policy still prevail in China. As a result of these differences, we may not develop in the same way or at the same rate as might be expected if the PRC economy was similar to those of the OECD member countries. Substantially all of our operations are conducted in China and substantially all of our revenues are generated in China. Adverse changes in economic and political policies of the PRC government could have a material adverse effect on overall economic growth in China, which in turn could materially adversely affect our business.

Uncertainties with respect to the PRC legal system could limit the legal protections available to you and us.

We conduct substantially all of our business through our operating subsidiaries in China. Our operating subsidiaries are generally subject to laws and regulations applicable to foreign investments in China and, in particular, laws applicable to foreign-invested enterprises. The PRC legal system is based on written statutes, and prior court decisions may be cited for reference but have limited precedential value. Since 1979, a series of new PRC laws and regulations have significantly enhanced the protections afforded to various forms of foreign investments in China. However, since the PRC legal system continues to evolve rapidly, the interpretations of many laws, regulations, and rules are not always uniform, and enforcement of these laws, regulations, and rules involve uncertainties, which may limit legal protections available to you and us. In addition, any litigation in China may be protracted and result in substantial costs and diversion of resources and management attention.

Furthermore, the PRC legal system is partly based on government policies and internal rules, some of which are not published in a timely manner or at all, and some of which may have retroactive effects. As a result, we may not be aware of our violation of any of these policies or rules until sometime after the violation. Such uncertainties, including the uncertainty over the scope and effect of our contractual, property (including intellectual property) and procedural rights under the PRC legal system could materially adversely affect our business and impede our ability to continue our operations.

The PRC government exerts substantial influence over the manner in which we must conduct our business activities.

The PRC government has exercised and continues to exercise substantial control over virtually every sector of the PRC economy through regulation and state ownership. Our ability to operate in China may be harmed by changes in its laws and regulations, including those relating to foreign investments, licenses and permits for business operation, foreign exchange, taxation, import and export tariffs, environmental regulations, land use rights, property, and other matters. We believe that our operations in China are in material compliance with all applicable legal and regulatory requirements. However, the central or local governments of the jurisdictions in which we operate may impose new, stricter regulations or interpretations of existing regulations that would require additional expenditures and efforts on our part to ensure our compliance with such regulations or interpretations.

Accordingly, government actions in the future, including any decision not to continue to support recent economic reforms and to return to a more centrally planned economy and any regional or local variations in the implementation of economic policies, could have a significant effect on economic conditions in China or particular regions thereof and could require us to divest ourselves of any interest we then hold in Chinese properties or joint ventures.

Restrictions on currency exchange may limit our ability to use our revenue effectively.

Substantially all of our sales are denominated in RMB, and any future restrictions on currency exchanges may limit our ability to use revenue generated in RMB to fund any future business activities outside China or other payments in U.S. dollars. Although the PRC government introduced regulations in 1996 to allow greater convertibility of the RMB for current account transactions, significant restrictions still remain, including primarily the restriction that foreign-invested enterprises may only buy, sell or remit foreign currencies after providing valid commercial documents at those banks in China authorized to conduct foreign exchange business. In addition, conversion of RMB for capital account items, including direct investments and loans, is subject to governmental approval and companies are required to open and maintain separate foreign exchange accounts for capital account items. We cannot be certain that the PRC regulatory authorities will not impose more stringent restrictions on the convertibility of the RMB.

Fluctuations in exchange rates could adversely affect our business and the value of our securities.

The value of our ordinary shares will be indirectly affected by the foreign exchange rate between the U.S. dollar and RMB and between those currencies and other currencies in which our sales may be denominated. Appreciation or depreciation in the value of the RMB relative to the U.S. dollar would affect our financial results reported in U.S. dollar terms without giving effect to any underlying change in our business or results of operations. Fluctuations in the

exchange rate will also affect the relative value of any dividends we issue that will be exchanged into U.S. dollars, as well as earnings from, and the value of, any U.S. dollar-denominated investments we make in the future.

Since July 2005, RMB has no longer been pegged to U.S. dollars. Although the People's Bank of China regularly intervenes in the foreign exchange market to prevent significant short-term fluctuations in the exchange rate, RMB may appreciate or depreciate significantly in value against U.S. dollars in the medium to long term. Moreover, it is possible that in the future PRC authorities may lift restrictions on fluctuations in the RMB exchange rate and lessen intervention in the foreign exchange market.

Very limited hedging transactions are available in China to reduce our exposure to exchange rate fluctuations. To date, we have not entered into any hedging transactions. While we may enter into hedging transactions in the future, the availability and effectiveness of these transactions may be limited, and we may not be able to successfully hedge our exposure at all. In addition, our foreign currency exchange losses may be magnified by PRC exchange control regulations that restrict our ability to convert RMB into foreign currencies.

Currently, some of our raw materials and major equipment are imported. In the event that the U.S. dollars appreciate against RMB, our costs will increase. If we cannot pass the resulting cost increases on to our customers, our profitability and operating results will suffer. In addition, if our sales to international customers grow, we will be increasingly subject to the risk of foreign currency depreciation.

Restrictions under PRC law on our PRC subsidiaries' ability to make dividends and other distributions could materially and adversely affect our ability to grow, make investments or acquisitions, pay dividends to you and otherwise fund and conduct our business.

Substantially all of our profits are generated by our PRC subsidiaries. However, PRC regulations restrict the ability of our PRC subsidiaries to make dividends and other payments to their offshore parent companies. PRC legal restrictions permit payments of dividends by our PRC subsidiaries only out of their accumulated after-tax profits, if any, determined in accordance with PRC accounting standards and regulations. Our PRC subsidiaries are also required under PRC laws and regulations to allocate at least 10.0% of their annual after-tax profits determined in accordance with PRC generally accepted accounting principles to a statutory general reserve fund until the amounts in such fund reach 50.0% of their registered capital. Allocations to these statutory reserve funds can only be used for specific purposes and are not transferable to us in the form of loans, advances or cash dividends. Any limitations on the ability of our PRC subsidiaries to transfer funds to us could materially limit our ability to grow, make investments or acquisitions that could be beneficial to our business, pay dividends and otherwise fund and conduct our business.

Failure to comply with PRC regulations relating to the establishment of offshore special purpose companies by PRC residents may subject our PRC resident shareholders to personal liability, limit our ability to acquire PRC companies or to inject capital into our PRC subsidiaries, limit the ability of our PRC subsidiaries to distribute profits to us or otherwise materially adversely affect us.

Pursuant to the Circular on Relevant Issues concerning Foreign Exchange Administration of Overseas Investment and Financing and Return Investments Conducted by Domestic Residents through Overseas Special Purpose Vehicle, or Circular 37, which was promulgated by SAFE, and became effective on July 4, 2014, (1) a PRC resident must register with the local SAFE branch before he or she contributes assets or equity interests in an overseas special purpose vehicle, or an Overseas SPV, that is directly established or controlled by the PRC resident for the purpose of conducting investment or financing; and (2) following the initial registration, the PRC resident is also required to register with the local SAFE branch for any major change, in respect of the Overseas SPV, including, among other things, a change in the Overseas SPV's PRC resident shareholder, name of the Overseas SPV, term of operation, or any increase or reduction of the Overseas SPV's registered capital, share transfer or swap, and merger or division.

We have requested the beneficial holders of our ordinary shares who are PRC residents to register with the relevant branch of SAFE in connection with their equity interests in us and our acquisitions of equity interests in our PRC subsidiaries pursuant to Circular 37 or the predecessor regulation of Circular 37, namely the Notice on Relevant Issues Concerning Foreign Exchange Administration for PRC Residents Engaging in Financing and Roundtrip Investments via Overseas Special Purpose Vehicles, as the case may be. Because of uncertainty over how Circular 37 will be interpreted and implemented, and how or whether SAFE will apply it to us, we cannot predict how it will affect our business operations or future strategies. For example, the ability of our present and prospective PRC subsidiaries to conduct foreign exchange activities, such as the remittance of dividends and foreign currency-denominated borrowings, may be subject to compliance with Circular 37 by our PRC resident beneficial holders.

In addition, such PRC residents may not always be able to complete the necessary registration procedures required by Circular 37. We also have little control over either our present or prospective direct or indirect shareholders or the outcome of such registration procedures. Failure of our present or future PRC resident beneficial holders to comply with Circular 37 could subject these PRC resident beneficial holders to fines or legal sanctions, restrict our overseas or cross-border investment activities, limit the ability of our PRC subsidiaries to make distributions or pay dividends or affect our ownership structure, which could adversely affect our business and prospects.

Failure to comply with PRC regulations regarding the registration requirements for share option plans may subject PRC plan participants or us to fines and other legal or administrative sanctions.

Our employees and directors who are PRC residents and who participate in our employees' share incentive plan are required to register with SAFE and complete other procedures through a domestic qualified agent, and to retain an overseas entrusted institution to handle matters in connection with their exercise or sale of share options. In addition, the PRC agent is required to make amendment registrations with respect to the share incentive plan if there is any material change to the share incentive plan, the PRC agent or the overseas entrusted institution or other material changes. Failure to comply with such requirements will subject us or our PRC resident option holders to fines and other legal or administrative sanctions. To date, we have completed the SAFE foreign exchange registration with respect to our share incentive plans, but there can be no assurance that we will be able to continue to do so in the future if the requirements are amended or changed, which would make it more difficult for us to incentivize our employees.

Furthermore, our employees working in the PRC who exercise share options, or whose restricted shares or restricted share units, or RSUs, vest, will be subject to PRC individual income tax. Our PRC subsidiaries are required to file documents related to employee share options, restricted shares or RSUs with the relevant tax authorities and to withhold individual income taxes of those employees related to their share options, restricted shares or RSUs. If the employees fail to pay, and our PRC subsidiaries fail to withhold, such PRC individual income taxes, our PRC subsidiaries may face sanctions imposed by the PRC tax authorities.

We may be unable to complete a business combination transaction efficiently or on favorable terms due to complicated merger and acquisition regulations.

In August 2006, six PRC regulatory agencies, including the China Securities Regulatory Commission, or CSRC, promulgated the Regulation on Mergers and Acquisitions of Domestic Companies by Foreign Investors, or Circular 10, which became effective in September 2006 and was amended in June 2009. This regulation, among other things, governs the approval process by which a PRC company may participate in an acquisition of assets or equity interests. Depending on the structure of the transaction, Circular 10 requires the PRC parties to make a series of applications and supplemental applications to the government agencies. In some instances, the application process may require the presentation of economic data concerning a transaction, including appraisals of the target business and evaluations of the acquirer, which are designed to allow the government to assess the transaction. Government approvals will have expiration dates by which a transaction must be completed and reported to the government agencies. Compliance with Circular 10 is likely to be more time-consuming and expensive than in the past and the government can now exert more control over the combination of two businesses. Accordingly, due to Circular 10, our ability to engage in business combination transactions has become significantly more complicated, time-consuming and expensive, and we may not be able to negotiate a transaction that is acceptable to our shareholders or sufficiently protect their interests in a transaction.

Circular 10 allows PRC government agencies to assess the economic terms of a business combination transaction. Parties to a business combination transaction may have to submit to the PRC Ministry of Commerce, or MOFCOM, and other relevant government agencies an appraisal report, an evaluation report and the acquisition agreement, all of which form part of the application for approval, depending on the structure of the transaction. The regulations also prohibit a transaction at an acquisition price obviously lower than the appraised value of the PRC business or assets and in certain transaction structures, require that consideration must be paid within defined periods, generally not in excess of a year. The regulation also limits our ability to negotiate various terms of the acquisition, including aspects of the initial consideration, contingent consideration, holdback provisions, indemnification provisions and provisions relating to the assumption and allocation of assets and liabilities. Transaction structures involving trusts, nominees and similar entities are prohibited. Therefore, such regulation may impede our ability to negotiate and complete a business combination transaction on financial terms that satisfy our investors and protect our shareholders' economic interests.

Under the Enterprise Income Tax Law, we may be classified as a "resident enterprise" of China. Such classification will likely result in unfavorable tax consequences to us and our non-PRC shareholders.

The Enterprise Income Tax Law, or the EIT Law, and its implementing rules became effective on January 1, 2008 and was amended on December 29, 2018. Under the EIT Law, an enterprise established outside of China with "de facto management bodies" within China is considered a "resident enterprise," meaning that it can be treated in a manner similar to a PRC enterprise for enterprise income tax purposes. The implementing rules of the EIT Law define de facto management as "substantial and overall management and control over the production and operations, personnel, accounting, and properties" of the enterprise.

On April 22, 2009, State Taxation Administration, or SAT, issued the Notice Concerning Relevant Issues Regarding Cognizance of Chinese Investment Controlled Enterprises Incorporated Offshore as Resident Enterprises pursuant to Criteria of de facto Management Bodies, or the Notice, which was amended on January 29, 2014, further interpreting the application of the EIT Law and its implementation on non-PRC enterprise or group controlled by a PRC enterprise or a PRC enterprise group. Pursuant to the Notice, an enterprise incorporated in an offshore jurisdiction and controlled by a PRC enterprise or group will be classified as a "non-domestically incorporated resident enterprise" if (1) its senior management in charge of daily operations reside or perform their duties mainly in China; (2) its financial or personnel decisions are made or approved by bodies or persons in China; (3) its substantial assets and properties, accounting books, corporate chops, board and shareholder minutes are kept in China; and (4) at least half of its directors with voting rights or senior management often reside in China. A resident enterprise would be subject to an enterprise income tax rate of 25.0% on its worldwide income and must pay a withholding tax at a rate of 10.0% when paying dividends to its non-PRC shareholders. However, it remains unclear as to whether the Notice is applicable to an offshore enterprise not controlled by a PRC enterprise or a PRC enterprise group. Nor are detailed measures on imposition of tax from non-domestically incorporated resident enterprises available. Therefore, it is unclear how the PRC tax authorities will determine tax residency based on the facts of each case.

We may be deemed to be a resident enterprise by PRC tax authorities. If the PRC tax authorities determine that we are a "resident enterprise" for PRC enterprise income tax purposes, a number of unfavorable PRC tax consequences could follow. First, we may be subject to the enterprise income tax at a rate of 25.0% on our worldwide taxable income as well as PRC enterprise income tax reporting obligations. In our case, this would mean that income such as interest on financing proceeds and non-PRC source income would be subject to PRC enterprise income tax at a rate of 25.0%. Second, although under the EIT Law and its implementing rules dividends paid to us from our PRC subsidiaries would qualify as "tax-exempt income," we cannot guarantee that such dividends will not be subject to a 10.0% withholding tax, as the PRC foreign exchange control authorities, which enforce the withholding tax, have not yet issued guidance with respect to the processing of outbound remittances to entities that are treated as resident enterprises for PRC enterprise income tax purposes. In addition, dividends paid by us to non-PRC shareholders may be subject to PRC withholding tax and gains on dispositions of our shares by non-PRC shareholders may be subject to PRC tax. In that case, the tax rate would be 10.0% in the case of non-PRC enterprise shareholder or 20.0% in the case of non-PRC individual shareholder. Finally, if we were treated as a "resident enterprise" by PRC tax authorities, we would be subject to taxation in both the U.S. and China, and our PRC tax may not be creditable against our U.S. tax.

We face uncertainties with respect to indirect transfers of equity interests in PRC resident enterprises by their non-PRC holding companies.

According to the Announcement of the State Administration of Taxation on Several Issues Concerning the Enterprise Income Tax on Indirect Property Transfer by Non-Resident Enterprises, or SAT Notice 7, promulgated by the SAT on February 3, 2015, as most recently amended on December 29, 2017, and the Announcement of the State Administration of Taxation on Matters Concerning Withholding of Enterprise Income Tax of Non-Resident Enterprises at Source, or SAT Notice 37, promulgated by the SAT on October 17, 2017, effective on December 1, 2017 and as amended on June 15, 2018, if a non-resident enterprise transfers its shares in an overseas holding company, which directly or indirectly owns PRC taxable properties, including shares in a PRC company, via an arrangement without reasonable commercial purpose, such transfer shall be deemed as indirect transfer of the underlying PRC taxable properties. Accordingly, the transferee shall be deemed as a withholding agent with the obligation to withhold and remit the enterprise income tax to the competent PRC tax authorities. Factors that may be taken into consideration when determining whether there is a "reasonable commercial purpose" include, among other factors, the economic essence of the transferred shares, the economic essence of the assets held by the overseas holding company, the taxability of the transaction in offshore jurisdictions, and economic essence and duration of the offshore structure. Under the terms of SAT Notice 7, the transfer which meets all of the following circumstances shall be deemed as having no reasonable commercial purposes: (i) over 75% of the value of the equity interests of the offshore holding company are directly or indirectly derived from PRC taxable properties; (ii) at any time during the year before the indirect transfer, over 90% of the total properties of the offshore holding company are investments within PRC territory, or in the year before the indirect transfer, over 90% of the offshore holding company's revenue is directly or indirectly derived from PRC territory; (iii) the function performed and risks assumed by the offshore holding company are insufficient to substantiate its corporate existence; and (iv) the foreign income tax imposed on the indirect transfer is lower than the PRC tax imposed on the direct transfer of the PRC taxable properties.

SAT Notice 7 also sets out safe harbors for the "reasonable commercial purpose" test. SAT Notice 7 contains an exemption for transfers of shares of a holding company listed outside the PRC, when the shares are acquired and sold in the public market.

However, uncertainties exist on testing the reasonable commercial purpose. For example, the relevant authority has not yet promulgated any formal provisions or formally declared or stated how to calculate the effective tax rates in foreign tax jurisdictions. As a result, we may become at risk of being taxed under SAT Notice 7 and SAT Notice 37 and the related SAT notices and we may be required to expend valuable resources to comply with SAT Notice 7 and SAT Notice 37 and the related SAT notices or to establish that we should not be taxed under SAT Notice 7 and SAT Notice 37 and the related SAT notices, which could have a material adverse effect on our financial condition and results of operations.

We may be exposed to liabilities under the Foreign Corrupt Practices Act and Chinese anti-corruption laws, and any determination that we violated these laws could have a material adverse effect on our business.

We are subject to the Foreign Corrupt Practice Act, or FCPA, and other U.S. laws that prohibit improper payments or offers of payments to foreign governments and their officials and political parties by U.S. persons and issuers as defined by the relevant statute, for the purpose of obtaining or retaining business. We have operations, agreements with third parties, and make most of our sales in China. PRC anti-corruption laws also strictly prohibit bribery of government officials. Our activities in China create the risk of unauthorized payments or offers of payments by the employees, consultants, sales agents, or distributors, even though they may not always be subject to our control. It is our policy to implement safeguards to discourage these practices by our employees. However, our existing safeguards and any future improvements may prove to be less than effective, and the employees, consultants, sales agents, or distributors may engage in conduct for which we might be held responsible. Particularly, most of the hospitals and inoculation centers in China are state-owned entities, whose employees may be recognized as foreign government officials for the purpose of FCPA. Therefore, any payments, expensive gifts or other benefits provided to an employee of the state-owned hospital or inoculation center may be deemed violation of FCPA. Violations of FCPA or PRC anti-corruption laws may result in severe criminal or civil sanctions, and we may be subject to other liabilities, which could negatively affect our business, prospects, operating results and financial condition. In addition, the U.S. government may seek to hold us liable for successor liability under FCPA violations committed by companies in which we invest or that we acquire.

If we become directly subject to the scrutiny, criticism and negative publicity involving U.S.-listed Chinese companies, we may have to expend significant resources to investigate and resolve the matter which could harm our business operations, stock price and reputation and could result in a loss of your investment in our stock, especially if such matter cannot be addressed and resolved favorably.

In recent years, U.S. public companies that have substantially all of their operations in China, particularly companies like us which have completed the "reverse merger" transactions, have been the subject of intense scrutiny, criticism and negative publicity by investors, financial commentators and regulatory agencies, such as the SEC. Much of the scrutiny, criticism and negative publicity has centered around financial and accounting irregularities and mistakes, a

lack of effective internal controls over financial accounting, inadequate corporate governance policies or a lack of adherence thereto and, in many cases, allegations of fraud. As a result of the scrutiny, criticism and negative publicity, the publicly traded stock of many U.S.-listed PRC-based companies has sharply decreased in value and, in some cases, has become virtually worthless. Many of these companies are now subject to shareholder lawsuits, SEC enforcement actions and are conducting internal and external investigations into the allegations. It is not clear what effect this sector-wide scrutiny, criticism and negative publicity will have on us, our business and our stock price. If we become the subject of any unfavorable allegations, whether such allegations are proven to be true or untrue, we will have to expend significant resources to investigate such allegations and/or defend our Company. This situation will be costly and time-consuming and distract our management from growing our Company. If such allegations are not proven to be groundless, our Company and our business operations will be severely impacted and your investment in our stock could be rendered worthless.

The disclosures in our reports and other filings with the SEC and our other public pronouncements are not subject to the scrutiny of any regulatory bodies in China. Accordingly, our public disclosure should be reviewed in light of the fact that no governmental agency that is located in China where substantially all of our operations and business are located has conducted any due diligence on our operations or reviewed or cleared any of our disclosure.

We are regulated by the SEC and our reports and other filings with the SEC are subject to SEC review in accordance with the rules and regulations promulgated by the SEC under the Securities Act and the Exchange Act. Unlike public reporting companies whose operations are located primarily in the United States, however, substantially all of our operations are located in China. Since substantially all of our operations and business take place in China, it may be more difficult for the Staff of the SEC to overcome the geographic and cultural obstacles that are present when reviewing our disclosure. These same obstacles are not present for similar companies whose operations or business take place entirely or primarily in the United States. Furthermore, our SEC reports and other disclosure and public pronouncements are not subject to the review or scrutiny of any PRC regulatory authority. For example, the disclosure in our SEC reports and other filings are not subject to the review of the CSRC, a PRC regulator that is tasked with oversight of the capital markets in China. Accordingly, you should review our SEC reports, filings and our other public pronouncements with the understanding that no local regulator has done any due diligence on our Company and with the understanding that none of our SEC reports, other filings or any of our other public pronouncements has been reviewed or otherwise scrutinized by any local regulator.

Our independent registered public accounting firm may be temporarily suspended from practicing before the SEC if unable to continue to satisfy SEC investigation requests in the future. If a delay in completion of our audit process occurs as a result, we could be unable to timely file certain reports with the SEC, which may lead to the delisting of our stock.

Substantially all of our sales are to customers in China, and we have all of our operations in China. Like many U.S.-listed companies with significant operations in China, our independent registered public accounting firm is located in China.

On January 22, 2014, Judge Cameron Elliot, an SEC administrative law judge, issued an initial decision suspending the Chinese member firms of the “Big Four” accounting firms, including our independent registered public accounting firm, from practicing before the SEC for six months. In February 2014, the initial decision was appealed. While under appeal and in February 2015, the Chinese member firms of “Big Four” accounting firms reached a settlement with the SEC. As part of the settlement, each of the Chinese member firms of “Big Four” accounting firms agreed to settlement terms that include a censure, undertakings to make a payment to the SEC, procedures and undertakings as to future requests for documents by the SEC, and possible additional proceedings and remedies should those undertakings not be adhered to.

If the settlement terms are not adhered to, Chinese member firms of "Big four" accounting firms may be suspended from practicing before the SEC which could in turn delay the timely filing of our financial statements with the SEC. In addition, it could be difficult for us to timely identify and engage another qualified independent auditor to replace our independent registered public accounting firm. A delinquency in our filings with the SEC may result in Nasdaq initiating procedures, which could adversely harm our reputation and have other material adverse effects on our overall growth and prospects.

Our independent registered public accounting firm's audit documentation related to their audit reports included in our annual report is located in China. The PCAOB currently cannot inspect audit documentation located in China and, as such, you may be deprived of the benefits of such inspection.

Our independent registered public accounting firm issued an audit opinion on the financial statements included in our annual reports filed with the SEC. Our independent registered public accounting firm's audit documentation related to their audit reports included in our annual reports is located in China. As auditors of companies that are traded publicly in the United States and a firm registered with the Public Company Accounting Oversight Board, or the PCAOB, our auditor is required by the laws of the United States to undergo regular inspections by the PCAOB. However, work papers located in China are not currently inspected by the PCAOB because the PCAOB is currently unable to conduct inspections without the approval of the PRC authorities.

Inspections of certain other firms that the PCAOB has conducted outside of China have identified deficiencies in those firms' audit procedures and quality control procedures, which may be addressed as part of the inspection process to improve future audit quality. However, the PCAOB is currently unable to inspect an auditor's audit work related to a company's operations in China and where such documentation of the audit work is located in China. As a result, our investors may be deprived of the benefits of the PCAOB's oversight of auditors that are located in China through such inspections.

The inability of the PCAOB to conduct inspections of an auditor's work papers in China makes it more difficult to evaluate the effectiveness of any of our auditor's audit procedures or quality control procedures that may be located in China as compared to auditors outside of China that are subject to PCAOB inspections. Investors may consequently lose confidence in our reported financial information and procedures and the quality of our financial statements.

RISKS RELATING TO OUR ORDINARY SHARES

The market price of our ordinary shares is volatile, leading to the possibility of its value being depressed at a time when you want to sell your holdings.

The market price of our ordinary shares is volatile, and this volatility may continue. Numerous factors, many of which are beyond our control, may cause the market price of our ordinary shares to fluctuate significantly. These factors include, among others:

- our earnings releases, actual or anticipated changes in our earnings, fluctuations in our operating results or our failure to meet the expectations of financial market analysts and investors;

- changes in financial estimates by us or by any securities analysts who might cover our stock;
- speculation about our business in the press or the investment community, including negative publicity and short seller reports that make allegations against us, even if unfounded;
- significant developments relating to our relationships with our customers or suppliers;
- stock market price and volume fluctuations of other publicly traded companies and, in particular, those that are in our industry;
- customer demand for our products;
- investor perceptions of our industry in general and our Company in particular;
- the operating and stock performance of comparable companies;
- general economic conditions and trends;
- major catastrophic events;
- announcements by us or our competitors of new products, significant acquisitions, strategic partnerships or divestitures;
- changes in accounting standards, policies, guidance, interpretation or principles;
- loss of external funding sources;
- sales of our ordinary shares or other securities, including sales by us and by our directors, officers or significant shareholders;
- additions or departures of key personnel; and
- investor perception of litigation, investigation or other legal proceedings involving us or certain of our individual shareholders or their family members.

Securities class action litigation is often instituted against companies following periods of volatility in their stock price. This type of litigation could result in substantial costs to us and divert our management's attention and resources. Moreover, securities markets may from time to time experience significant price and volume fluctuations for reasons unrelated to operating performance of particular companies. For example, in July 2008, the securities markets in the United States, China and other jurisdictions experienced the largest decline in share prices since September 2001. These market fluctuations may adversely affect the price of our ordinary shares and other interests in our Company at a time when you want to sell your interest in us.

The provisions in our currently effective memorandum and articles of association and our preferred shares rights agreement might discourage, delay or prevent a change of control of our Company or changes in our management and, therefore depress the trading price of our ordinary shares.

Our amended and restated memorandum and articles of association adopted on July 21, 2017 contain provisions that are intended to deter coercive takeover practices and inadequate takeover bids by making such practices or bids unacceptably expensive to the raider and to encourage prospective acquirers to negotiate with our board of directors, rather than to attempt a hostile takeover.

These provisions include, among others:

- the right of our board of directors to issue preferred shares without shareholder approval;
- division of our board of directors into three classes with staggered terms;
- rules regarding how shareholders may call shareholder meetings; and
- requiring special resolution of the shareholders vote to amend certain provisions of the memorandum and articles of association.

On February 22, 2017, our board of directors adopted a preferred shares rights agreement between us and the Securities Transfer Corporation, as the rights agent, which was amended and restated on July 28, 2017 and further amended on February 20, 2019 (the "Rights Agreement"). The Rights Agreement provides, among other things, that when specified events occur, our shareholders will be entitled to purchase from us a fraction of a share of series A participating preferred share for each ordinary share they own. Such preferred share purchase rights are triggered by the earlier to occur of (1) 10 business days (or a later date determined by our board of directors before the rights are separated from our ordinary shares) after the public announcement that a person or group has become an "acquiring person" by acquiring beneficial ownership of 15.0% or more of our outstanding ordinary shares or (2) 10 business days (or a later date determined by our board of directors before the rights are separated from our ordinary shares) after a person or group begins a tender or exchange offer that, if completed, would result in that person or group becoming an acquiring person. The issuance of preferred shares pursuant to the Rights Agreement would cause substantial dilution to a person or group that attempts to acquire us on terms not approved by our board of directors. For more information about the Rights Agreement, see "Item 10.B. Additional Information—Memorandum and Articles of Association—Preferred Shares Rights Plan."

We do not intend to pay dividends for the foreseeable future.

For the foreseeable future, we intend to retain substantially all earnings to finance the development and expansion of our business, and we do not anticipate paying any cash dividends on our ordinary shares. Accordingly, investors must be prepared to rely on sales of their ordinary shares after price appreciation to earn an investment return, which may never occur. Investors seeking cash dividends should not purchase our ordinary shares. Any determination to pay dividends in the future will be made at the discretion of our board of directors and will depend on our results of operations, financial condition, contractual restrictions, restrictions imposed by applicable law and other factors our board of directors deems relevant.

Stock prices of companies with business operations primarily in China have fluctuated widely in recent years, and the trading prices of our ordinary shares are likely to be volatile, which could result in substantial losses to investors.

The trading prices of our ordinary shares are likely to be volatile and could fluctuate widely in response to factors beyond our control. For example, if one or more of the industry analysts or ratings agencies who cover us downgrades us or our ordinary share, or publishes unfavorable research about us, the price of our ordinary shares may decline. If one or more of these analysts or agencies cease to cover our Company or fail to regularly publish reports on us, we could lose visibility in the financial markets, which could cause the price of our ordinary shares or trading volume to decline. In addition, the performance and fluctuation of the market prices of other China-based, U.S.-listed healthcare companies may affect the volatility in the price of and trading volume for our ordinary shares. In recent years, a number of PRC-based companies have listed their securities, or are in the process of preparing for listing their securities, on U.S. stock markets. Some of these companies have experienced significant volatility, including significant price declines following their initial public offerings. The trading performances of the securities of these PRC-based companies' securities at the time of or after their offerings may affect the overall investor sentiment towards PRC-based companies listed in the United States and consequently may affect the trading performance of our ordinary shares. These broad market and industry factors may significantly affect the market price and volatility of our ordinary shares, regardless of our actual operating performance.

In addition to market and industry factors, the price and trading volume for our ordinary shares may be highly volatile for specific business reasons. Any of these factors may result in large and sudden changes in the volume and price at which our ordinary shares will trade. We cannot assure you that these factors will not occur in the future again. In the past, following periods of volatility in the market price of a company's securities, shareholders have often instituted securities class action litigation against that company. If we were involved in a class action lawsuit, it could divert the attention of senior management, and, if adversely determined, could have a material adverse effect on our business, financial condition and results of operations.

You may have difficulty enforcing judgments against us.

We are an exempted company incorporated under the laws of the Cayman Islands. Most of our assets are located in China and most of our current operations are conducted in China. In addition, most of our directors and officers are nationals and residents of countries other than the United States and substantially all the assets of these persons are located outside the United States. As a result, it may be difficult for you to effect service of process within the United States upon our PRC operations and these persons. It may also be difficult for you to enforce in U.S. courts judgments on the civil liability provisions of the U.S. federal securities laws against us and our officers and directors.

There is no statutory enforcement in the Cayman Islands of judgments obtained in the federal or state courts of the United States (and the Cayman Islands are not a party to any treaties for the reciprocal enforcement or recognition of such judgments), a judgment obtained in such jurisdiction will be recognized and enforced in the courts of the Cayman Islands at common law, without any re-examination of the merits of the underlying dispute, by an action commenced on the foreign judgment debt in the Grand Court of the Cayman Islands, provided such judgment (a) is given by a foreign court of competent jurisdiction, (b) imposes on the judgment debtor a liability to pay a liquidated sum for which the judgment has been given, (c) is final, (d) is not in respect of taxes, a fine or a penalty, and (e) was not obtained in a manner and is not of a kind the enforcement of which is contrary to natural justice or the public policy of the Cayman Islands. However, the Cayman Islands courts are unlikely to enforce a judgment obtained from the U.S. courts under civil liability provisions of the U.S. federal securities law if such judgment is determined by the courts of the Cayman Islands to give rise to obligations to make payments that are penal or punitive in nature. Because such a determination has not yet been made by a court of the Cayman Islands, it is uncertain whether such civil liability judgments from U.S. courts would be enforceable in the Cayman Islands.

There is also uncertainty as to whether the PRC courts would recognize or enforce judgments of U.S. courts. Although recognition and enforcement of foreign judgments are provided for under the PRC Civil Procedures Law, recognition and enforcement of a foreign judgment by PRC courts depend on treaties or reciprocity between China and the country where the judgment is made. China does not have any treaties or other arrangements with the United States that provide for the reciprocal recognition and enforcement of U.S. judgments. In addition, according to the PRC Civil Procedures Law, PRC courts will not enforce a foreign judgment against us or our directors and officers if they decide that the judgment violates basic principles of PRC law or national sovereignty, security, or the public interest. So it is uncertain whether a PRC court would enforce a judgment rendered by a court in the United States.

Since we are a Cayman Islands company, the rights of our shareholders may be more limited than those of shareholders of a company organized in the United States.

Our corporate affairs are governed by our memorandum and articles of association, as amended and restated from time to time, by the Companies Law (2018 Revision) of the Cayman Islands (the “Companies Law”), and by the common law of the Cayman Islands. The rights of shareholders to take action against our directors, actions by minority shareholders and the fiduciary duties of our directors to our Company under Cayman Islands law are to a large extent governed by the common law of the Cayman Islands. The common law of the Cayman Islands is derived in part from comparatively limited judicial precedent in the Cayman Islands and from English common law, the decisions of

whose courts are of persuasive authority but are not binding on a court in the Cayman Islands. The rights of our shareholders and the fiduciary duties of our directors, although clearly established under Cayman Islands law, are not specifically prescribed in statute or a particular document in the same way that they are in certain statutes or judicial precedents in some jurisdictions of the United States. In particular, the Cayman Islands has a less developed body of securities laws relative to the United States. Therefore, our shareholders may have more difficulty in protecting their interests in the face of actions by our management, directors or controlling shareholders than would shareholders of a corporation incorporated in a jurisdiction in the United States. In addition, shareholders of Cayman Islands companies may not have standing to initiate a shareholder derivative action before the federal courts of the United States.

We are a foreign private issuer within the meaning of the rules under the Exchange Act, and as such we are exempt from certain provisions applicable to U.S. domestic public companies.

Because we qualify as a foreign private issuer under the Exchange Act, we are exempt from certain provisions of the securities rules and regulations in the United States that are applicable to U.S. domestic issuers, including:

- the rules under the Exchange Act requiring the filing with the SEC of quarterly reports on Form 10-Q or current reports on Form 8-K;
- the sections of the Exchange Act regulating the solicitation of proxies, consents, or authorizations in respect of a security registered under the Exchange Act;
- the sections of the Exchange Act requiring insiders to file public reports of their stock ownership and trading activities and liability for insiders who profit from trades made in a short period of time; and
- the selective disclosure rules by issuers of material nonpublic information under Regulation FD.

We are required to file an annual report on Form 20-F within four months of the end of each fiscal year. In addition, we intend to publish our results on a quarterly basis as press releases, distributed pursuant to the rules and regulations of Nasdaq. Press releases relating to financial results and material events will also be furnished to the SEC on Form 6-K. However, the information we are required to file with or furnish to the SEC will be less extensive and less timely compared to that required to be filed with the SEC by U.S. domestic issuers. As a result, you may not be afforded the same protections or information that would be made available to you were you investing in a U.S. domestic issuer.

As a Cayman Islands company, we are permitted to adopt certain home country practices in relation to corporate governance matters that differ significantly from Nasdaq corporate governance listing standards; these practices may afford less protection to shareholders than they would enjoy under Nasdaq corporate governance listing standards.

As a Cayman Islands company listed on Nasdaq, we are subject to Nasdaq corporate governance listing standards. However, Nasdaq rules permit a foreign private issuer like us to follow the corporate governance practices of its home country. Certain corporate governance practices in the Cayman Islands, which is our home country, may differ significantly from Nasdaq corporate governance listing standards. For example, neither the Companies Law nor our memorandum and articles of association requires a majority of our directors to be independent and we could include non-independent directors as members of our compensation committee and nominating committee, and our independent directors would not necessarily hold regularly scheduled meetings at which only independent directors are present. Except as disclosed in “Item 16G. Corporate Governance”, we have not taken any exemption from the Nasdaq corporate governance rules to follow our home country practices. However, if we choose to follow any home

country practice in the future, our shareholders may be afforded less protection than they otherwise would under Nasdaq corporate governance listing standards applicable to U.S. domestic issuers.

ITEM 4. INFORMATION ON THE COMPANY

A. History and Development of the Company

Our legal name is China Biologic Products Holdings, Inc. and our commercial name is Taibang Biologic. Our principal executive offices are located at 18th Floor, Jialong International Building, 19 Chaoyang Park Road, Chaoyang District, Beijing 100125, People's Republic of China. Our corporate telephone number is (8610) 6598-3111 and our fax number is (8610) 6598-3222. Our agent for service of process in the United States is Cogency Global Inc. We maintain a website at *http://www.chinabiologic.com* that contains information about our Company, but that information is not part of this report or incorporated by reference herein.

Our Company was originally incorporated on December 20, 1989 under the laws of the State of Texas as Shepherd Food Equipment, Inc. On November 20, 2000, Shepherd Food Equipment, Inc. changed its corporate name to Shepherd Food Equipment, Inc. Acquisition Corp., or Shepherd. Shepherd is the survivor of a May 28, 2003 merger between Shepherd and GRC Holdings, Inc., or GRC, a Texas corporation. In the merger, the surviving corporation adopted the articles of incorporation and bylaws of GRC and changed its corporate name to GRC Holdings, Inc. On January 10, 2007, a plan of conversion became effective pursuant to which GRC was converted into a Delaware corporation and changed its name to China Biologic Products, Inc.

On July 19, 2006, we completed a reverse acquisition with Logic Express Ltd., or Logic Express, a British Virgin Islands company, as a result of which Logic Express became our wholly owned subsidiary, the former shareholders of Logic Express became our then controlling shareholders, and Logic Express' majority owned PRC subsidiary, Shandong Taibang, became our majority owned indirect subsidiary, which marked the commencement of our plasma products business.

In April 2009, we acquired 90% equity interest in Guiyang Dalin Biologic Technologies Co., Ltd., or Dalin, a then shareholder holding 54% equity interest in Guizhou Taibang. In January 2011, we acquired the remaining 10% equity interest in Dalin. From August 2014 to April 2016, we gradually increased our shareholding in Guizhou Taibang to 85.27% through a series of acquisition of minority interests or capital injections. On November 8, 2016, two former minority shareholders withdrew their respective capital contributions in Guizhou Taibang, and as a result, Guizhou Taibang became our indirect wholly owned subsidiary.

China Biologic Products Holdings, Inc. was incorporated by China Biologic Products, Inc. as an exempted company in the Cayman Island on April 24, 2017. On July 21, 2017, China Biologic Products, Inc. completed its redomiciliation to the Cayman Islands by merging with and into China Biologic Products Holdings, Inc., with China

Biologic Products Holdings, Inc. as the surviving company.

On January 1, 2018, we acquired 80% equity interest in TianXinFu, a medical device company primarily engaging in the manufacturing and sale of regenerative medical biomaterial products, from PW Medtech Group Limited ("PWM").

The common stock of China Biologic Products, Inc. was initially quoted on the over-the-counter market maintained by Pink Sheets LLC. On February 29, 2008, the common stock of China Biologic Products, Inc. was approved for quotation on the Over-The-Counter Bulletin Board under the trading symbol “CBPO.OB.” On November 25, 2009, the common stock of China Biologic Products, Inc. was approved for listing on the Nasdaq Global Market under the symbol “CBPO” and subsequently approved for listing on the Nasdaq Global Select Market on December 7, 2010. Upon the completion of the redomicile merger on July 21, 2017, the common stock of China Biologic Products, Inc. was converted into ordinary shares of China Biologic Products Holdings, Inc., which continued to be listed on the Nasdaq Global Select Market under the symbol “CBPO” effective July 24, 2017.

Recent Developments

On January 1, 2018, we acquired 80% equity interest in TianXinFu from PWM, in exchange for the issuance of 5,521,000 ordinary shares to PWM. TianXinFu is a medical device company primarily engaging in the manufacturing and sale of regenerative medical biomaterial products, including artificial dura mater and spinal dura mater products. Its pipeline products mainly include absorbable oral repair membrane for oral and maxillofacial surgery and the second generation artificial dura mater. TianXinFu has an extensive nationwide distribution network with distributors covering the major provinces in China, which we plan to leverage to maximize growth opportunities for our plasma products.

In February 2018, we received the GMP certificate for our new facility in Shandong province and commenced operation.

In February 2018, Guizhou Taibang received approval from the Health Commission of Hainan Province to build a new plasma collection station in Hainan Province.

In March 2018, we received the operating permit for and commenced operations at our new plasma collection station in Daming County in Hebei Province.

In July 2018, Shandong Taibang received the regulatory approval to build a new plasma collection station in Linqu County of Shandong Province.

In July 2018, we received the operating permit for and commenced operations at our new branch collection facility in Feicheng County, which operates under our Ningyang plasma collection station in Shandong Province.

In November 2018, Guizhou Taibang obtained the approval for clinical trial of its new generation IVIG.

In December 2018, Guizhou Taibang obtained the land use right of 206 acres in the same city of its existing manufacturing facility in Guizhou Province and planned to construct a new manufacturing facility to replace its old facility in Guizhou Province. We expect to launch this new facility by the end of 2022.

In January 2019, Guizhou Taibang obtained the renewed GMP certificates for both of its plasma production facility and its placenta polypeptide production facility.

On February 20, 2019, the Company entered into an amendment No. 1 to its amended and restated preferred shares rights agreement, dated as of July 31, 2017, between the Company and Securities Transfer Corporation, as rights agent, to extend the expiration date of the rights contained therein from February 22, 2019 to February 22, 2021. See "Item 10.B. Additional Information—Memorandum and Articles of Association—Preferred Shares Rights Plan" for further details.

B. Business Overview

We are a biopharmaceutical company principally engaged in the research, development, manufacturing and sales of human plasma-based biopharmaceutical products, or plasma products, in China. We are among the top five producers of plasma products in China in terms of 2018 sales, based on our industry knowledge. We operate our plasma business through a majority owned subsidiary, Shandong Taibang, a company based in Tai'an, Shandong Province, and a wholly owned subsidiary, Guizhou Taibang, a company based in Guiyang, Guizhou Province. We also hold a minority equity interest in Huitian, a plasma products company based in Xi'an, Shaanxi Province.

We have a strong biopharmaceutical product portfolio covering over 20 different dosage forms of plasma products across nine categories and one chemical drug, placenta polypeptide. All of our plasma products and the placenta polypeptide product are prescription medicines administered in the form of injections. Our principal products are human albumin and immunoglobulin for intravenous injection, or IVIG. Albumin has been used for almost 50 years to treat critically ill patients by assisting the maintenance of adequate blood volume and pressure. IVIG is used for certain disease prevention and treatment by enhancing specific immunity. These products use human plasma as their principal raw material. Sales of human albumin products represented approximately 32.0%, 35.8% and 39.2% of our total sales for 2018, 2017 and 2016, respectively. Sales of IVIG products represented approximately 24.3%, 31.7% and 34.6% of our total sales for 2018, 2017 and 2016, respectively. Our sales model for plasma products focuses on direct sales to hospitals and inoculation centers and is complemented by distributor sales.

On January 1, 2018, we acquired 80% equity interest in TianXinFu, a medical device company primarily engaging in manufacturing and sale of regenerative medical biomaterial products, including artificial dura mater and spinal dura mater products. Its pipeline products mainly include absorbable oral repair membrane for oral and maxillofacial surgery and the second generation artificial dura mater.

We started reporting our financial results in segments along products lines since our acquisition of TianXinFu in 2018 and classified our reportable operating segments into (i) biopharmaceutical products and (ii) biomaterial products. Biopharmaceutical products currently include plasma products and placenta polypeptide.

We do not account for the results of our operations on a geographic or other basis.

PLASMA INDUSTRY

Overview

We operate primarily in the plasma industry in China. We derive certain industry-related data from reports and written analysis prepared by The Marketing Research Bureau, Inc., or MRB, an independent research firm focused on blood and plasma industry data on a global level, including a China-specific report from January 2017.

China is the second largest plasma products market in the world, after the United States. According to MRB, China's plasma products market (excluding recombinant products) grew from $0.80 billion in 2009 to $2.47 billion in 2015 in terms of sales revenue, representing a compound annual growth rate, or CAGR, of 20.7%. MRB had expected that by 2018, China's plasma-derived products market will reach over $3.3 billion, representing about a 35% increase from 2015, assuming domestic plasma supply continues to grow at least 8% annually. Based on our industry knowledge, human albumin products dominated China's plasma products market with a market share of 64.4% in terms of production value in 2018, and IVIG products accounted for 21.7% of the market. Other plasma products, including coagulation factors, accounted for the remaining 13.9% of the market in 2018.

Compared to more developed countries, China has a lower per capita usage level of plasma products, and China's plasma products market is significantly different in terms of product composition and range. In more developed countries such as the United States, IVIG products account for a majority of plasma product sales. This difference reflects the maturity levels of the plasma industries in these countries. According to MRB, plasma fractionation came into existence in the United States in the 1940s, whereas in China, plasma processing appeared in the 1960s or 1970s. Until the early 1970s, the U.S. plasma products market was dominated by albumin products, as is the case in China's market presently. The current low per capita consumption of IVIG products in China is primarily attributable to a lack of awareness of the benefits of IVIG therapy, especially in medical conditions such as primary immune deficiency or chronic inflammatory demyelinating polyneuropathy, and lower per capita healthcare spending in China. China's plasma products market is expected to be increasingly driven by IVIG products in the future as IVIG therapy becomes more widespread as a result of the combined efforts of physician education and product promotion, among other factors.

Based on our industry knowledge, China National Biotec Group, or CNBG, China Biologic, Hualan Biological Engineering Inc., or Hualan, Shanghai RAAS Blood Products Co., Ltd., or RAAS, and Sichuan Yuanda Shuyang Pharmaceutical Co., Ltd., or Shuyang, were the top five plasma product manufacturers in terms of sales revenue in 2018.

Overall Plasma Products Market Trends

Compared to more developed countries, China's plasma products market has distinctive characteristics and trends, including the following:

High Entry Barriers. The PRC State Council has ceased issuing new plasma fractionation licenses since 2001, and there are approximately 30 licensed producers of plasma products in China, of which only approximately 27 are currently in operation. Nearly all of these producers make albumin and IVIG products, but only four operate with the product portfolio comprising at least nine categories of plasma products. Furthermore, foreign investment in domestic producers of plasma products is subject to stringent government approval process. As a result, existing China-based producers with large production capacities face limited competition and are well positioned to gain more market share during the industry consolidation phase.

Stringent regulation. China's plasma products market is stringently regulated. Because of the public health crises of contaminated plasma products experienced by China over the past decade, China has implemented, and is expected to continue to maintain, stringent regulations for the plasma products industry in the foreseeable future. The opening of a new plasma collection station in China requires the approval by three levels of government authorities, namely the provincial, municipal and county level authorities, which is a time-consuming and difficult process. To be eligible to open a new collection station, a company must produce no fewer than six types of plasma products, which must include products in three mandatory categories, namely human albumin, immunoglobulin and coagulation factors. From 2010 to 2015, various local governments approved the opening of plasma collection stations by small companies that were not able to produce all the mandatory products. In response, in December 2016, the NHC and NMPA jointly released a new guideline on the regulation of plasma collection stations. The guideline aims to strengthen regulatory oversight for existing collection stations and approval requirements for new plasma collection stations, and to tighten safety control at the plasma collection stations to improve the quality of plasma collected. The guideline states that in considering the applications for the opening of new plasma collection stations, the relevant authorities should give priority to companies with strong research and development capabilities, high plasma utilization rate and good management practice. We believe this guideline will benefit large plasma products manufacturers like China Biologic by reducing the chance for smaller manufacturers to open new plasma collection stations.

Demand outstripping supply. Due to stringent regulations on the collection of raw plasma from human beings and a lack of plasma donation, China has experienced a shortage of plasma products since the 1980s. There are close to 260 plasma collection centers in China, compared to over 550 in the United States. The restriction on approving new collection centers in China, cultural barriers to plasma donation, concerns over plasma donation safety, and low quantity per donation and long intervals between donations contribute to the supply shortage. According to the NHC, the demand for raw plasma materials in China is estimated to be over 10,000 tons per annum. Total plasma collected in 2016 was approximately 7,200 tonnes in China, in comparison with approximately 38,000 tonnes in the United States. As a result, the tendering prices for plasma products by various provincial and regional governments have been slightly increased or stabilized in contrast to price cuts for other drugs.

Ban on imports. As a measure to prevent a range of viral risks, China strictly prohibits the import of plasma products, except for human albumin and recombinant factor VIII products. In other market segments, such as IVIG, where import is prohibited, domestic producers are shielded from competition from their multinational peers, and the demand for such products in China has been supplied entirely by domestically-sourced plasma only.

Low consumption level and huge growth potential. While China's plasma products market has experienced rapid growth in recent years, China's per capita consumption of plasma products lags substantially behind more developed countries. The following chart sets forth the comparison of per capita consumptions of selected plasma products in China and the United States in 2015:

Source: MRB

(1) Based on 2015 per capita consumption (kilogram per million inhabitants) in the Unites States divided by 2015 per capita consumption in China.

(2) Based on 2015 per capita consumption (international units per capita) in the Unites States divided by 2015 per capita consumption in China.

Based on our industry knowledge, as a result of the growing number of patients seeking treatment of plasma products, an increasing awareness of health benefits of plasma products and the rising affordability of plasma products since the commencement of China's healthcare reform, China's plasma products market is expected to continue to have substantial growth potential.

Improved fractionation technologies. In the early years of plasma fractionation in China, technologies used were not as sophisticated as those in the United States, resulting in relatively low yields and a product portfolio limited to only two or three products (albumin, IVIG and hyper-immune globulin products). Technologies used by and yields from leading domestic manufacturers are, however, on par with international standards, and these manufacturers are well positioned to manufacture safer products and have higher production efficiency compared with other domestic companies.

Increasing market concentration of top players. China's current landscape of plasma products market is relatively fragmented. However, factors such as stringent regulations, tightened quality control and heavy capital expenditure requirements have contributed to increasing industry consolidation in recent years. For instance, the NMPA issued new GMP requirements to re-certify all the fractionation plants by the end of 2013, which has resulted in the shutdown of smaller fractionation plants that were unable to upgrade their production lines by the deadline. China's plasma industry has also witnessed multiple merger and acquisition transactions in recent years. Market leaders with stable plasma supplies complemented by further collection expansion potentials, strong product portfolios and robust research and development capabilities are expected to be able to continue to solidify their positions and further gain development advantages.

BUSINESS

Our Competitive Strengths

We believe that the following competitive strengths enable us to compete effectively in and capitalize on the growth of the plasma products, the placenta polypeptide and the biomaterial products markets:

Leading producer of plasma products in China with strong growth potential

We are one of the top five producers of plasma products in terms of 2018 sales revenue based on our industry knowledge. In the albumin segment, which accounts for a majority of the plasma products market in China, we are the second largest domestic producer with a market share of approximately 5.8% in terms of 2018 production volume, based on our industry knowledge. In the IVIG segment, which is the second largest segment of the plasma products market in China, we are also the second largest producer overall in China with a market share of approximately 13.2% in terms of 2018 production volume, based on our industry knowledge.

We have a strong product portfolio covering over 20 different dosage forms of plasma products across nine categories and a robust near-term product pipeline of five products. We believe that we are one of the only four plasma products manufacturers in China with the product portfolio comprising at least nine categories of plasma products. Since different types of plasma products utilize different protein components of plasma, different types of plasma products can be produced from the same raw plasma supply with minimal incremental increase in raw material cost. Our broad product portfolio, supported by our strong research and development capabilities, therefore, provides us with the benefit of more comprehensive plasma utilization, which in turn contributes to higher profit margins.

We believe that product safety and supply stability are the most critical considerations for hospitals and inoculation centers in making purchase decisions on plasma products. We implement stringent quality control measures throughout our production process, and have not historically experienced failure to receive pre-sale approval or had a recall with respect to any of our plasma products. Our new manufacturing facility in Shandong Province and the manufacturing facility in Guizhou Province together have a production capacity of 1,600 tonnes. As a leading producer of plasma products, we have been able to maintain a steady plasma supply volume and sales volume over the years. Our safety record and the stability of our supply, we believe, have strengthened our business relationship with existing customers and enhanced our ability to acquire new customers.

China's plasma products market is, and will continue to be, subject to stringent government regulation. In recent years, however, PRC regulators have also taken initiatives to increase plasma collection volume by approving more new plasma collection stations and expanding plasma collection coverage for existing plasma collection stations. We are well positioned to benefit from these favorable regulatory trends as we are able to meet the associated quality control and technology investment requirements.

Stable and growing supply of plasma with strategically located collection stations

Our ability to secure and expand our supply of plasma, a critical raw material for our operations, is one of our key strengths. Our plasma collection network consists of 17 captive plasma collection stations (including two branch collection facilities). In addition, Huitian, a company in which we hold a minority equity interest, operates three plasma collection stations. In 2018, we were among the top five plasma collectors in China in terms of collection volume with approximately 11.6% of the total national supply, based on our industry knowledge.

We operate eleven plasma collection stations (including two branch collection facilities) in Shandong Province, two in Guangxi Province, two in Guizhou Province, and two in Hebei Province, covering an aggregate population of approximately 47.7 million. Shandong Province has one of the largest populations, and Guangxi Province and Guizhou Province are among the least economically developed regions in China — both favorable characteristics underpinning a strong and stable plasma supply. Hebei Province is an underdeveloped province for plasma collection that provides convenient and economic transportation to our manufacturing facilities in adjacent Shandong Province.

We continue to seek innovative ways to identify and attract potential plasma donors. We regularly organize a variety of community events to deliver our messages that focus on the life-saving and other social contribution aspects of plasma donation. We also regularly review our donor compensation to ensure that it remains competitive. In addition, we actively seek to expand the geographic coverage of our existing collection stations to gain access to additional donor populations. As a result of our collection efforts, our average plasma collection volume is greater than the national average by approximately 77.2% in 2018 based on our industry knowledge. Our total plasma collection volume increased by approximately 8.0% from 2017 to 2018.

In addition to increasing our collection volume at existing plasma collection stations, we also seek to build new plasma collection stations to expand our donor base. For example, in March 2018, we received the operating permit for and commenced operations at our new plasma collection station in Daming County in Hebei Province. In July 2018, we received the operating permit for and commenced operations at our new branch collection facility in Feicheng County, which operates under our Ningyang plasma collection station in Shandong Province. In February 2018, we received the regulatory approval to build a new plasma collection station in Wenchang City of Hainan Province. In July 2018, we received the regulatory approval to build a new plasma collection station in Linqu County of Shandong Province.

Robust near-term product pipeline to capture full plasma value chain backed by strong research and development capabilities

We currently have five new plasma products under development, with one of them in registration stage and expected to be commercially launched by the first half of 2019. We expect our expanding product portfolio to further increase our comprehensive plasma utilization, which will in turn lead to higher profit margins. With our current and pipeline products, we believe that our product offerings will be able to capture substantially all of the value along the plasma products value chain.

Benefiting, in part, from our direct sales to hospitals and inoculation centers, our ability to bring new products to market reflects a research and development process that is demand-driven and highly responsive to physician feedback and the latest market trends in medicine. To complement our research and development efforts, we also work closely with a number of leading research institutes in China specializing in plasma products. As of December 31, 2018, we held 70 patents for plasma products.

Leading position in China's fast-growing immunoglobulin products market

We were among the top three producers of immunoglobulin products in China in 2018 in terms of production value, and ranked the second for IVIG and the third for human tetanus immunoglobulin in China in 2018 in terms of production volume, based on our industry knowledge. Our total sales revenue of immunoglobulin products, accounting for approximately 37.0% of our total sales, increased to $173.0 million in 2018 from $97.0 million in 2013, representing a CAGR of 12.3% between 2013 and 2018. We attribute our rapid growth and leading position in the immunoglobulin products market, in part, to our continued marketing efforts to promote these products, especially the promotion of IVIG therapy to physicians in tier-one cities and large regional hospitals.

According to MRB, China's IVIG products achieved sales revenue of $671.0 million in 2015, representing a CAGR of approximately 14.5% from 2009. The substantial growth in China's IVIG products market in recent years was mainly due to increasing awareness by doctors of the benefits of IVIG therapy. In more developed countries, major

applications of IVIG therapy are for chronic diseases such as primary immune deficiency and chronic inflammatory demyelinating polyneuropathy, which require treatment for a number of years or even lifetime. In contrast, IVIG therapy is only used to treat acute diseases and infections in China. Compared with markets in more developed countries, China's IVIG products market is far from mature. The per capita consumption of IVIG products in China is significantly lower than that in the more developed countries. In 2015, for instance, the per capita consumption of IVIG products in China was 15.0 grams per 1,000 inhabitants, as compared to over 200 grams per 1,000 inhabitants in the United States, according to MRB. Therefore, there is tremendous growth potential as China's IVIG consumption draws closer to that of the more developed countries as a result of growing awareness of IVIG therapy and favorable government reimbursement policies. Developing this market requires significant efforts from IVIG manufacturers to educate physicians, the public and the health authorities on the benefits of IVIG therapy for a number of medical conditions. As a leading player with own marketing and promotion team in China's IVIG products market, we are uniquely positioned to benefit from the anticipated increase in demand from the popularization of IVIG therapy.

Leading producer of dura mater products in China with strong growth potential

TianXinFu, the company we acquired in January 2018, is a medical device company primarily engaged in the manufacturing and sale of regenerative medical biomaterial products. Its core product, artificial dura mater, accounting for 90.9% of its sales in 2018, is widely used in neurosurgeries. Based on our industry knowledge, TianXinFu is the largest dura mater manufacturer in China with a market share of approximately 35% in terms of 2016 sales for both domestically produced and import products.

In addition, TianXinFu also has several products in its pipeline to help ensure future sustainable growth. In January 2019, TianXinFu obtained the approval for manufacturing of a new product, brain tissue retractor, which is also used in neurosurgeries, and it aims to launch the first batch of this product to the market in the first half of 2019. TianXinFu has also completed the clinical trial research of two additional products and expects to obtain the manufacturing approval in late 2019 or early 2020. Several other products are also under clinical trial or are preparing for clinical trial. As these products launch in the future, TianXinFu will further improve its position in the tissue repair market.

Flexible and effective sales and distribution model aimed to maximize penetration

We have a flexible sales model for plasma products that focuses on direct sales to hospitals and inoculation centers and is complemented by distributor sales. Under this sales model, our products reach 31 provinces, municipalities and autonomous regions in China. For medical device products, TianXinFu also has an extensive sales and marketing network covering over 1,600 Chinese hospitals in approximately 30 provinces in China. With the integration of TianXinFu, we expect to benefit from TianXinFu's extensive nationwide sales networks and professional marketing expertise to further improve the distribution of our plasma products.

In 2018, 50.6% of our plasma product sales were generated from direct sales, and in 2018, our direct sales network covered approximately 763 hospitals and inoculation centers. Our sales and marketing team, consisting of 245 employees as of December 31, 2018, is responsible for the sales and marketing efforts to our end customers and provide product educational programs and other sales support directly to doctors and nurses. These efforts are designed to ensure effective and seamless communications with our end customers, particularly with respect to clinical education, which provides us with first-hand intelligence on the latest industry trends and market demands and enables us to provide better after-sale services and support. For example, our sales and marketing team actively promotes new IVIG indications that are widely accepted in more developed countries but less known among Chinese physicians.

Our direct sales network is complemented by sales through distributors, which accounted for 49.4% of our plasma product sales in 2018. We select our distributors through a rigorous process, which focuses on market leadership in the covered region, the degree of control we have over to which hospitals our products are sold (i.e., larger and higher tiered hospitals are preferred), and the level of access we have to our customers (i.e., greater access enables us to better track the sales of our products).

We believe that our flexible sales model of focusing on direct sales is cost-effective and has helped us to achieve strong financial performance. Our selling expenses as a percentage of sales were 20.5%, 9.4% and 3.4% in 2018, 2017 and 2016, respectively; and our operating margin was 31.3%, 36.7% and 42.1% during these periods, respectively.

Experienced and committed management team

We have an experienced, dedicated and visionary management team with an in-depth understanding of the pharmaceutical industry in China. Our Chief Executive Officer, Dr. Bing Li, has extensive experience in the pharmaceutical industry across multinational and domestic companies, and is instrumental in the development and implementation of our business strategy. Our Chief Financial Officer, Ming Yang, has more than 20 years of financial management and accounting experience. Mr. Guangli Pang and Mr. Gang Yang, the general manager of Shandong Taibang and Guizhou Taibang, respectively, have more than 30 and 20 years of experience in the plasma products industry in China, respectively. TianXinFu's management team also has many years of experience in their industry. With our reformed senior management team that was put in place in 2018, we have been committed to improving corporate governance and enhancing shareholder value. We believe our management team, with their extensive industry background and strong management talent, provides a strong foundation for the execution of our growth strategy and achievement of our goals.

Our Business Strategy

Our mission is to build a world-class biopharmaceutical and biotechnology company, with a leading position in key therapeutic areas. To achieve this objective, we have implemented a business strategy with the following key components:

Securing the supply of plasma

To secure the supply of plasma, we plan to build new plasma collection stations in regions not covered by our existing collection network as well as to expand collection territories of existing plasma collection stations. We currently have a total of 17 plasma collection stations (including two branch collection facilities) in operation, of which eleven are in Shandong Province, two in Guangxi Province, two in Guizhou Province and two in Hebei Province. In March 2018, we received the operating permit for and commenced operations at our new plasma collection station in Daming

County in Hebei Province. In July 2018, we received the operating permit for and commenced operations at our new branch collection facility in Feicheng County, which operates under our Ningyang plasma collection station in Shandong Province. In February 2018, we received the regulatory approval to build a new plasma collection station in Wenchang City of Hainan Province. In July 2018, we received the regulatory approval to build a new plasma collection station in Linqu County of Shandong Province. Meanwhile, we are carrying out various promotional activities to stabilize and expand our donor base for our existing plasma collection stations.

Further strengthening of research and development capability

We believe that, unlike other more developed countries such as the United States, China's plasma products are at an early stage of development. There are many other plasma products that are being used in the United States, which are not currently manufactured or used widely in China. We intend to strengthen our research and development capabilities through in-house development and partnership with leading international players to expand our product line to include plasma products that have higher margins and are technologically more advanced. We also intend to continue to improve the yield for our products. As a result of our research and development efforts, we currently have five new plasma products under development, with one of them in registration stage and expected to be commercially launched in the first half of 2019. TianXinFu also has several products in its pipeline to help ensure the sustainable growth in the future. For further details of our pipeline products, see "Item 4.B. Information on the Company—Business Overview—Business—Our Research and Development Efforts" below. We believe that our increased focus on research and development will give us a competitive advantage in China over our competitors.

Market development and network expansion

We intend to further strengthen our terminal promotion capabilities and boost demand for our products through medical education targeted at end users. In particular, we plan to make promotional efforts by educating doctors and patients in our hospital partner, with a focus on IVIG and new products such as PCC and Fibrinogen, of which we continue to see a significant gap in usage between China and Western countries. In parallel, we will select new high-potential hospitals and get our products listed in those hospitals effectively. We also plan to identify and establish strong partnerships with reliable distributors to supplement our direct sales efforts and support market access. In addition, we are exploring partnerships with various retail pharmacy chains which we consider as an alternative channel to hospital sales.

Organic growth complemented by acquisition of competitors and/or other new biopharmaceutical and medical device products

We have expanded organically by securing sufficient plasma supply and strengthening in-house development efforts. In addition to organic growth, acquisition is an important part of our expansion strategy. Although there are approximately 30 approved plasma-based biopharmaceutical manufacturers in the market, we believe that there are approximately 27 manufactures currently in operation in China, only about half of which are competitive. We estimate that the top five manufacturers in China accounted for approximately 70% market share (excluding imports) in terms of sales revenue in 2018. We believe that the regulatory authorities are considering further industry reform and those smaller, less competitive manufacturers will face possible revocation of their manufacturing permits by the regulators due to the compliance cost, making them potential targets for acquisition. If we are presented with appropriate opportunities, we may acquire additional companies in the plasma sectors.

Furthermore, we plan to add new biopharmaceutical and medical device products to our portfolio, and potentially acquire stronger operational capabilities in commercial activities, research and development and manufacturing. We also plan to expand our industry leadership position to markets outside of China, by transitioning from plasma products to other related therapeutic areas and medical devices, which will help us evolve into a world-class leading biopharmaceutical and biotech company. Potential targets for mergers and acquisitions may bring us products and technology in strategic therapeutic areas. In addition, they may also bring us highly valuable operational capabilities in different areas.

Our Products

Our principal plasma products are our approved human albumin and IVIG products. Human albumin is principally used to treat critically ill patients by replacing lost fluid and maintaining adequate blood volume and pressure. IVIG products are primarily used to enhance specific immunity, a defense mechanism by which the human body generates certain immunoglobulin, or antibodies, against invasion by potentially dangerous substances. In a situation where the human body cannot effectively react to these foreign substances, injection of IVIG products can provide sufficient antibodies to neutralize such substances. We also have one chemical drug, placenta polypeptide. In addition, on January 1, 2018, we acquired 80% equity interest in TianXinFu, a medical device company primarily engaging in manufacturing and sale of regenerative medical biomaterial products. All of the plasma products and the main category of other products that we are currently approved to produce are listed in the table below. All of our approved plasma products and the placenta polypeptide products are prescription medicines administered in the form of injections.

Approved Products[(1)(2)]	**Treatment/Use**
Human albumin – 20%/10ml, 20%/25ml, 20%/50ml, 10%/100ml, 10%/20ml, 10%/50ml, 25%/50ml and 20%/50ml (10g, from factor IV)	Shock caused by blood loss trauma or burn; raised intracranial pressure caused by hydrocephalus or trauma; oedema or ascites caused by hepatocirrhosis and nephropathy; prevention and treatment of low-density-lipoproteinemia; and neonatal hyperbilirubinemia.
Human immunoglobulin – 10%/3ml and 10%/1.5ml	Original immunoglobulin deficiency, such as X chain low immunoglobulin, familiar variable immune deficiency, immunoglobulin G secondary deficiency; secondary immunoglobulin deficiency, such as severe infection, newborn sepsis; and auto-immune deficiency diseases, such as original thrombocytopenia purpura or Kawasaki disease.
IVIG – 5%/25ml, 5%/50ml, 5%/100ml and 5%/200ml	Same as above.
Human hepatitis B immunoglobulin – 100 IU, 200IU and 400IU	Prevention of measles and contagious hepatitis. When applied together with antibiotics, its curative effect on certain severe bacteria or virus infection may be improved.
Human rabies immunoglobulin – 100IU, 200IU and 500IU	Mainly for passive immunity from bites or claws by rabies or other infected animals. All patients suspected of being exposed to rabies are treated with a combined dose of rabies vaccine and human rabies immunoglobulin.
Human tetanus immunoglobulin – 250IU	Mainly used for the prevention and therapy of tetanus. Particularly applied to patients who have allergic reactions to tetanus antitoxin. [(3)]
Placenta polypeptide – 4ml/vial	Treatment for cell immunity deficiency diseases, viral infection and leucopenia caused by various reasons, and assist in postoperative healing.
Factor VIII – 200IU and 300IU	Treatment for coagulopathies such as hemophilia A and increased concentration of coagulation factor VIII.
Human prothrombin complex concentrate (or PCC) – 300IU	Treatment for congenital and acquired clotting factor II, VII, IX, X deficiency, such as Hemophilia B, excessive anticoagulant, and vitamin K deficiency, etc.

Human fibrinogen – 0.5g	Treatment for lack of fibrinogen and increase human fibrinogen concentration.
Artificial dura mater	Dura substitutes are used when the patients' dura cannot be sutured satisfactorily and watertight closure is difficult to achieve.

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(1) "%" represents the degree of dosage concentration for the product and each product has its own dosage requirement. For example, human albumin 20%/10ml means 2g of human albumin is contained in each 10ml packaging and human immunoglobulin 10%/3ml means 300mg of human immunoglobulin is contained in each 3ml packaging. Under PRC law, each variation in the packaging, dosage and concentration of medical products requires separate registration and approval by NMPA before it may be commercially available for sale. For example, among our human albumin products, only human albumin 20%/10ml, 20%/25ml, 20%/50ml, 10%/100ml, 10%/20ml, 10%/50ml, 25%/50ml and 20%/50ml (10g, from factor IV) products are currently approved and are commercially available.

(2) "IU" means International Units. IU is a unit used to measure the activity of many vitamins, hormones, enzymes, and drugs. An IU is the amount of a substance that has a certain biological effect. For each substance there is an international agreement on the biological effect that is expected for 1 IU. In the case of immunoglobulin, it means the number of effective units of antibodies in each package.

(3) Tetanus antitoxin is a cheaper injection treatment for tetanus. However, it is not widely used because most people are allergic to it.

Raw Materials

Plasma from in-house collection

Plasma is the principal raw material for our biopharmaceutical products. We currently operate 15 plasma collection stations (including two branch collection facilities) through Shandong Taibang and two plasma collection stations through Guizhou Taibang. We plan to build new plasma collection stations throughout China as well as to expand collection territories of existing plasma collection stations. In March 2018, we received the operating permit for and commenced operations at our new plasma collection station in Daming County. In July 2018, we received the operating permit for and commenced operations at our new branch collection facility in Feicheng County. In February 2018, we received the regulatory approval to build a new plasma collection station in Wenchang City of Hainan Province. In July 2018, we received the regulatory approval to build a new plasma collection station in Linqu County of Shandong Province. We believe that our plasma collection stations give us a stable source of plasma supply and control over product quality. Also, we believe that we have enjoyed benefits of economies of scale, including sharing certain administration and management expenses across our several plasma collection stations.

Plasma sourced from Xinjiang Deyuan

We entered into a cooperation agreement with Xinjiang Deyuan and its controlling shareholder in August 2015, supplemented by a supplementary agreement entered into in August 2018. Under these agreements, Xinjiang Deyuan had sold us more than 500 tonnes of source plasma in batches from August 2015 to August 2018 and agreed to sell to us no less than 500 tonnes of source plasma over a three year period from August 2018 to August 2021. As of December 31, 2018, an aggregate of 652 tonnes of plasma had been delivered to us under these agreements. Our transactions with Xinjiang Deyuan provide us with a significant volume of additional raw material over the contracted period and enable us to efficiently enhance our production capacity utilization and supply more plasma products to satisfy growing market demand. As required and approved by the local regulator, all plasma used for production must be able to be traced to plasma collection stations, and therefore, we monitor the quality of the plasma collection process at Xinjiang Deyuan.

Other raw materials and packaging materials

Other raw materials used in the production of our biopharmaceutical products include reagents and consumables such as filters and alcohol. The principal packaging materials we use include glass bottles for our injection products as well as external packaging and printed instructions for our biopharmaceutical products. The TianXinFu business that we acquired in January 2018 uses extracted collagen as the main raw material to produce the regenerative medical biomaterial products. We acquire our raw materials and packaging materials from our approved suppliers in China and overseas. We select our suppliers based on quality, consistency, price and delivery of the raw materials which they supply.

Our five largest suppliers for other raw materials and packaging materials in the aggregate accounted for approximately 34.2%, 32.8% and 42.5% of our total procurement for the years ended December 31, 2018, 2017 and 2016, respectively. We have not experienced any shortage of supply or significant quality issue with respect to any raw materials and packaging materials.

Plasma Collection

Our plasma collection stations purchase, collect, examine and deepfreeze plasma on behalf of Shandong Taibang and Guizhou Taibang and are subject to provincial health bureau’s rules, regulations and specifications for quality, packaging and storage. Each station is only allowed to collect plasma from healthy donors within its respective districts and in accordance with a time table set by its respective parent company, Shandong Taibang or Guizhou Taibang. The plasma must be tested negative for HBsAb, HCV and HIV antibodies and the RPR test, contain ALT 25 units (ALT) and plasma protein 55g/l, and contain no virus pollution or visible erythrolysis, lipemia, macroscopic red blood cell or any other irregular finding. The plasma is packaged in 25 to 30 separate 600g bags in each box and then stored at a temperature of -20°C or lower within limited time after collection to ensure that it will congeal within six hours. Each bag is labeled with a computer-generated tracking code. Shandong Taibang and Guizhou Taibang are responsible for the overall technical and quality supervision of the plasma collection, packaging and storage at each plasma collection station.

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Sales, Marketing and Distribution

Because all of our biopharmaceutical products are prescription drugs and the medical device products are used in surgeries, we can only sell to hospitals and inoculation centers directly or through approved distributors. For 2018, 2017 and 2016, direct sales to hospitals and inoculation centers represented approximately 50.6%, 60.7% and 61.1%, respectively, of our total plasma products sales and the other biopharmaceutical and medical device products are mostly sold through distributors. Our five largest customers, which are all plasma products customers, in the aggregate accounted for approximately 12.4%, 16.8% and 15.5% of our total sales for 2018, 2017 and 2016, respectively. Our largest customer accounted for approximately 5.8%, 5.8% and 5.4% of our total sales for 2018, 2017 and 2016, respectively.

We select our distributors through a rigorous process, which focuses on market leadership in the covered region, the degree of control we have over to which hospitals our products are sold (i.e. larger and higher tiered hospitals are preferred), and the level of access we have to our customers (i.e. greater access enables us to better track the sales of our products). As part of our effort to ensure the quality of our distributors, we also conduct due diligence to verify whether potential distributors have obtained necessary permits and licenses and facilities (such as cold storage) for the distribution of our products and assess their financial condition. Certain of our regional distributors are appointed on an exclusive basis within a specified geographic territory. Our supply contracts set out the quantity and price of products to be supplied by us. For distributors, our contracts also contain guidelines for the sale and distribution of our products, including restrictions on the geographical territory in which the products may be sold. We provide our distributors with training in relation to our products and on sales techniques.

Our largest geographic market of biopharmaceutical products is Shandong Province, representing approximately 18.6%, 23.8% and 24.3% of our total sales for 2018, 2017 and 2016, respectively. Jiangsu Province is our second largest geographic market of biopharmaceutical products, representing 11.0%, 10.0% and 10.0% of our total sales for 2018, 2017 and 2016, respectively. In addition to Shandong Province and Guizhou Province, we also have sales presence in 29 other provinces, municipalities and autonomous regions.

As of December 31, 2018, our marketing and after-sales services department consisted of 245 employees, including 65 employees of TianXinFu.

We believe that due to the nature of our products, our competitiveness centers on product safety, steady supply, brand recognition, timely availability and pricing. As all of our biopharmaceutical products are prescription medicines and the medical device products are used in surgeries, we are not allowed to advertise our products in the mass media. For 2018, 2017 and 2016, total sales and marketing expenses amounted to approximately $95.6 million, $34.8 million and $11.7 million, respectively, representing approximately 20.5%, 9.4% and 3.4%, respectively, of our total sales.

Seasonality of Our Sales

Our operating results and operating cash flows historically have not been subject to seasonal variations. This pattern may change, however, as a result of new market opportunities or new product introductions.

Our Research and Development Efforts

Each of Shandong Taibang, Guizhou Taibang and TianXinFu has its own research and development department. All of our research and development researchers hold degrees in medicine, pharmacy, biology, biochemistry or other relevant fields. Our research and development departments are responsible for the development and registration of our products. We also cooperate with a number of leading institutions in China specializing in plasma products to strengthen our research and development capacity.

We employ a market driven approach to initiate research and development projects, including both product and production technique development. We believe that the key to our industry's developments is the safety of products and maximizing the yield per unit volume of plasma. Our research and development efforts for plasma products are focused on the following areas:

- broaden the breadth and depth of our portfolio of plasma products;
- enhance the yield per unit volume of plasma through new fractionation techniques;
- maximize manufacturing efficiency and safety;
- promote product safety through implementation of new technologies; and
- refine production technology for existing products.

All the products we currently manufacture have been developed in-house. The following table outlines our research and development work for biopharmaceutical products in progress:

Products Currently in Development	Treatment/Use	Status of Product Development	Stage*
Immune Globulin Intravenous (Human), Caprylate/Chromatography Purified and 20 nm virus filtration	Treatment for original immunoglobulin deficiency; secondary immunoglobulin deficiency and auto-immune deficiency	Obtained approval for clinical trial by the NMPA.	3

	diseases.		
Human Antithrombin III (concentration)	Treatment for (1) hereditary antithrombin III deficiency in connection with surgical or obstetrical procedures and (2) thromboembolism.	Obtained approval for clinical trial by the NMPA. Commenced clinical trial program.	3
Human coagulation factor IX	Prevention and control of bleeding in patients who suffer from hemophilia B.	Completed the clinical trial and preparing documentation for the registration purpose.	4
Human Cytomegalovirus Immunoglobulin	Prophylaxis and treatment of CMV infection, especially for the prevention of active virus replication for patients in immunosuppression, such as organ transplantation patients.	Obtained approval for clinical trial by the NMPA. In the process of collecting Cytomegalovirus specialty plasma.	3
Human Fibrin Sealant	Adjunct to hemostasis on patients undergoing surgery in case that traditional surgical techniques (such as suture, ligature or cautery) are ineffective or impractical.	Obtained approval for clinical trial by the NMPA.	3

* These stages refer to the stages in the regulatory approval process for our biopharmaceutical products described in "— Regulation."

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TianXinFu also has its own research and development department. In January 2019, TianXinFu obtained the approval for manufacturing of a new product, brain tissue retractor, which is used in neurosurgeries, and it aims to launch the first batch of this product to the market in the first half of 2019. Among TianXinFu's pipeline products, the clinical trials of two products, 1) absorbable oral repair membrane for oral and maxillofacial surgery and 2) the second generation artificial dura mater, have been completed and TianXinFu is preparing documentation for the registration purpose. The clinical trials of two products, 1) bio-artificial membrane for repairing maxillofacial bone defect and 2) bio-artificial intraocular pressure maintenance membrane for ophthalmic surgery, have commenced. TianXinFu is preparing for the clinical trial of another product, biological bone matrix.

For 2018, 2017 and 2016, total research and development expenses amounted to approximately $9.5 million, $6.5 million and $7.0 million, respectively, representing approximately 2.0%, 1.7% and 2.1%, respectively, of our total sales.

Competition

We face intense competition. There are both local and overseas pharmaceutical enterprises that engage in the manufacture and sale of potential substitutes or similar biopharmaceutical and medical device products as our products in China. These competitors may have more capital, better research and development resources, and stronger manufacturing and marketing capabilities than we do. In our industry, we compete based upon product quality, production cost, ability to produce a diverse range of products and logistical capabilities.

Our profitability may be adversely affected if competition intensifies, competitors reduce prices, regulators promulgate or strengthen regulations that have the effect of controlling the prices of our products, or competitors develop new products or product substitutes with comparable medicinal applications or therapeutic effects that are more effective or less costly than ours.

There are approximately 30 approved manufacturers of plasma products in China of which approximately 27 are currently in operation. Many of these manufacturers are essentially producing the same type of products that we produce, including human albumin and various types of immunoglobulin. We believe, however, that it is difficult for new manufacturers to enter into the industry due to current regulatory barrier. We believe that our major competitors in China include CNBG, Hualan, Shanghai RAAS Blood Products Co., Ltd., Sichuan Yuanda Shuyang Pharmaceutical Co., Ltd., and Boya Bio-Pharmaceutical Group Co., Ltd.

In addition, we also face competition from imported products where allowed. Since 2009, China has experienced a substantial increase in volume of imported human albumin. If the import of human albumin continues to increase, we

may face more fierce competition in the domestic human albumin market.

Based on our industry knowledge, we are among the top five plasma products manufacturer in China in terms of 2018 sales revenue. To solidify our market position, we have expanded our plasma product portfolio to nine categories, including three coagulation factor products, namely factor VIII, human prothrombin complex concentrate, or PCC, and human fibrinogen. For factor VIII, we obtained the manufacturing approval certificate and the GMP certification for production facility from the NMPA in 2012. For PCC, we obtained the manufacturing approval certificate in July 2013 and the GMP certification for the production facility in March 2014. For human fibrinogen, we obtained the manufacturing approval certificate and the GMP certification for the production facility in October 2017. We believe that we are one of the only four plasma products manufacturers in China with the product portfolio comprising at least nine categories of plasma products.

We will continue to meet challenges and secure our market position by enhancing our existing products, introducing new products to meet customer demand, delivering quality products to our customers in a timely manner and maintaining our established industry reputation.

Our Intellectual Property

We held 87 issued patents and 30 pending patent applications in China for certain manufacturing processes and packing designs as of December 31, 2018. We also had 13 registered trademarks in China as of December 31, 2018.

In addition, we had registered four domain names as of December 31, 2018, namely, *www.chinabiologic.com*, *www.ctbb.com.cn*, *www.taibanggz.com* and *www.txfmedical.com*.

Regulation

Set forth below is a summary of the major PRC regulations relating to our business.

Due to the nature of our products, we are supervised by various levels of the NHC and/or NMPA. Such supervision includes the safety standards regulating our raw material supplies (mainly plasma), our manufacturing process and our finished products.

We are also subject to other PRC regulations, including those relating to taxation, foreign currency exchange and dividend distributions.

Plasma collection

Plasma collection stations are commonly used to collect plasma in China and substantially all plasma donations for commercialized plasma products are made at plasma collection stations. Plasma donation means that donors give only plasma but not the other blood components such as platelets, red cells and infection-fighting white cells. In China, current regulations only allow an individual donor to donate plasma in 14-day intervals, with a maximum quantity of 580ml (or about 600 gram) per donation.

The following are the general regulatory requirements to establish a plasma collection station in China:

- meet the overall plan in terms of the total number, distribution, and operational scale of plasma collection stations;
- have the required professional health care technicians to operate a station;
- have the facility and a hygienic environment to operate a station;
- have an identification system to identify donors;
- have the equipment to operate a station;
- have the equipment and quality control technicians to ensure the quality of the plasma collected; and
- conform to the provisions with regard to the national bio-safety administration.

Plasma collection stations were historically owned and managed by the PRC health authorities. In March 2006, the NHC and other eight central governmental departments of the PRC State Council promulgated the Measures for the Reform of Blood Collection Stations whereby the ownership and management of the plasma collection stations are required to be transferred to plasma-based biopharmaceutical companies while the regulatory supervision and administrative control remain with the government. As a result, all plasma collection stations are now having direct supply relationship with their parent fractionation facilities.

Set out below are some of the safety features at China's plasma collection stations:

- Plasma collection stations can only source plasma from donors that are the local residents within the assigned districts approved by the provincial health authorities.
- Plasma collection stations must perform a health check on the donor. Once the donor passes the health check, a "donor permit" is issued to the donor. The standards of the health check are established by the health authorities at the PRC State Council level.
- The designing and printing of the "donor permit" is administrated by the provincial health authorities, autonomous region or municipality government, as the case maybe. The "donor permit" cannot be altered, copied or assigned.
- Before donors can donate plasma, the station must verify their identities and the validity of their "donor permits". The donors must pass the verification procedures before they are given a health check and blood test. For those donors who have passed the verification, health check and blood test and whose plasma were donated according to prescribed procedures, the station will set up a record.

- Collected plasma which passes quality testing cannot be used to produce plasma products until its donor donates again after a 90-day quarantine period and the subsequently donated plasma passes quality testing as well.

- All plasma collection stations are subject to the regulations on the prevention of communicable diseases. They must strictly adhere to the sanitary requirements and reporting procedures in the event of an epidemic situation.

The operation of plasma collection stations is subject to stringent regulations by the PRC government. We estimate that there were close to 260 plasma collection stations in operation in China as of December 31, 2018.

Importation of plasma products

According to current PRC regulations, except for human albumin and recombinant factor VIII products, all the plasma products are banned from importation into China.

Production of plasma products

The manufacture and sale of plasma products are subject to stringent regulations by the PRC government. Under PRC law, each variation in the packaging, dosage and concentration of medical products requires separate registration and approval by the NMPA before it may be commercially available for sale. For example, among our human albumin products, only human albumin 20%/10ml, 20%/25ml, 20%/50ml, 10%/100ml, 10%/20ml, 10%/50ml, 25%/50ml and 20%/50ml (10g, from factor IV) products have been approved and are commercially available. All references in this report to our manufacture and sale of human albumin relate to our approved human albumin products.

The table below illustrates the PRC approval process for the manufacture and sale of new medicines:

Stage		Activities
1	Pre-clinical Research	The pre-clinical research stage mainly involves the following steps: initiate the research project, study the project feasibility and develop a plan for testing and producing the new medicine; develop the scope and the techniques for testing the new medicine in the laboratory; develop laboratory-scale manufacturing process for the new medicine; develop the manufacturing process for the new medicine on an expanded basis in the workshop; and develop the virus inactivation process/techniques, engage qualified institution to assess the virus inactivation process/techniques, and report the related documents to the related government authority for re-assessment.
2	Clinical trial application	The clinical trial application stage mainly involves the following steps: submit required sample products and documents to the PMPA. The PMPA will perform an on-site examination on the documents and equipment, and then transfer all the required materials to the NMPA, who will further review the documents and test the sample products; submit a draft clinical trial program to the NMPA for the application of the clinical trial; and obtain approval of the clinical trial.
3	Clinical trials	Clinical trials range from Phase I to IV: Phase I: preliminary trial of clinical pharmacology and human safety evaluation studies. The primary objective is to observe the pharmacokinetics and the tolerance level of the human body to the new medicine as a basis for ascertaining the appropriate delivery methods or dosage. Phase II: preliminary exploration on the therapeutic efficacy. The purpose is to assess preliminarily the efficacy and safety of the new medicine on patients and to provide the basis for designing dosage tests in phase III. Phase III: confirm the therapeutic efficacy. The objective is to further verify the efficacy and safety of the new medicine on patients, to evaluate the benefits and risks and finally to provide sufficient experimental evidence to support the registration application of the new medicine. Phase IV: application research conducted after the launch of a new medicine. The objective is to observe the efficacy and adverse reaction of the new medicine under extensive use, to perform an evaluation of the benefits and risks of the application among ordinary or special group of patients, and to ascertain and optimize the appropriate dosage and formula for application.
4	Registration	The registration stage mainly involves the following steps: submit documents related to pre-clinical and clinical trials to the PMPA, which will perform on-site inspection on the clinical trials and then transfer the related documents to the NMPA for further review;

receive on-site inspection by the NMPA on three consecutive sample productions at the production facilities;
obtain the new drug certification and a drug registration number (assuming the applicant has a valid Pharmaceutical Manufacturing Permit and the requisite production conditions for the new medicine have been met).

Pharmaceutical Manufacturing Permit

To manufacture pharmaceutical products in China, a pharmaceutical manufacturing enterprise should obtain a Pharmaceutical Manufacturing Permit issued by the competent pharmaceutical administration authorities at the provincial level. Among other things, such a permit sets forth the permit number, the name, legal representative and registered address of the enterprise, the site and scope of production, issuing institution, date of issuance and effective period.

Each Pharmaceutical Manufacturing Permit issued to a pharmaceutical manufacturing enterprise is effective for a period of five years. Any enterprise holding a Pharmaceutical Manufacturing Permit is subject to review by the relevant regulatory authorities on an annual basis. Such enterprise is required to apply for renewal of such permit within six months prior to its expiration and will be subject to re-assessment by the issuing authorities in accordance with the then effective legal and regulatory requirements for the purposes of such renewal.

We have obtained the Pharmaceutical Manufacturing Permit for the pharmaceutical products of Shandong Taibang in January 1, 2016, which will expire on December 31, 2020; the Pharmaceutical Manufacturing Permit for the pharmaceutical products of Guizhou Taibang in January 1, 2016, which will expire on December 31, 2020; and the Pharmaceutical Manufacturing Permit for the pharmaceutical products of Huitian in February 19, 2016 which will expire on December 31, 2020.

GMP standard

The World Health Organization encourages the adoption of good manufacturing practice, or GMP, standards in pharmaceutical production in order to minimize the risks involved in any pharmaceutical production that cannot be eliminated by testing the final products.

A GMP certification certifies that a manufacturer’s factory and quality management system have met certain criteria for engaging in the planning and manufacturing of drug products in various aspects, including, among others, institution and staff qualifications, production premises and facilities, equipment, production management, quality controls, production operation, maintenance of sales records and management of customer complaints and adverse event reports. In January 2011, the Ministry of Health, or MOH, issued an updated set of GMP standards, also known as the new GMP, to replace the previous version issued in 1998.

All of our pharmaceutical production facilities are required to obtain GMP certificates for their pharmaceutical production activities. Shandong Taibang obtained the GMP certificate for its new facility in February 2018. In January 2019, Guizhou Taibang obtained the renewed GMP certificates for both of its plasma production facility and its placenta polypeptide production facility. Huitian obtained the GMP certificate from the NMPA for its new plasma production facility in February 2016 and commenced commercial production thereafter.

MDMEL

Pursuant to the Measures for the Supervision and Administration of Medical Device Production promulgated on July 30, 2014 by the NMPA and amended on November 17, 2017, to establish an enterprise producing Class I medical devices, the applicant shall undergo the formalities for the recordation of Class I medical devices at the local medical products administration at the level of a districted city, and submit the photocopy of the recordation certificate for the produced medical devices held by the enterprise undergoing recordation and relevant materials. To establish an enterprise engaging in the production of Class II or Class III medical devices, the applicant shall file an application for production licensing with the local medical products administration of the province, autonomous region, or municipality directly under the Central Government. The medical products administration of a province, autonomous region or municipality directly under the Central Government shall examine the application materials within 30 working days after the date of acceptance, and conduct on-site verification according to the requirements of quality management rules for medical device production. If the prescribed conditions are met, the medical products administration shall make a written decision to approve licensing in accordance with law, and issue the MDMEL within ten working days; and if the prescribed conditions are not met, the medical products administration shall make a written disapproval decision, and give an explanation on reasons. Therefore, a manufacturer will not be able to commence any business operations without submitting a filing or obtaining a MDMEL.

Pursuant to the Administrative Measures for the Registration of Medical Devices promulgated by the NMPA, which became effective on October 1, 2014, Class I medical devices shall be managed by record-filing, while Class II and Class III medical devices shall be managed by registration. Manufacturers engaging in producing Class I medical devices are required to file with the city-level medical products administrative authorities of which the manufacturers are located. Production of Class II medical devices is subject to the inspection and approval and the grant of registration certificates for medical device by the medical products administrative authorities under the PRC government at the province, autonomous region and municipality levels. Production of Class III medical devices is subject to the inspection and approval and the grant of a medical device registration certificate by the NMPA. A medical device registration certificate is valid for five years and the holder of a certificate shall apply for extension within six months prior to its expiration.

TianXinFu is required to obtain the MDMEL for its production activities and it obtained the MDMEL (Scope of Production Activities: Class III medical device: III-6846-1, III-6846-2, III-6864-1 and Class II medical device: II-6810) in Beijing in December 2016.

Permit for Medical Device Operation

According to Measures on the Supervision and Administration of the Business Operations of Medical Devices promulgated by the NMPA on July 30, 2014, which was last amended and became effective on November 17, 2017,

the business operations of medical devices shall be subject to classified management according to the degree of risks of medical devices. Enterprises engaging in the operations of Class I medical devices are not required to obtain approval or submit a filing; enterprises engaging in the operation of Class II medical devices are required to file with medical products administrative authorities at the city level in which the enterprises operate, while enterprises engaging in the operations of Class III medical devices shall apply to the medical products administrative authorities at the city level in which the enterprises operate to obtain the operation permits. The term of validity of the Permit for Medical Device Operation is five years. The operating enterprise is required to submit an annual report to the medical products administrative authorities each year. To maintain the validity of the permit, the operating enterprise is required to submit an extension application six months prior to its expiration date.

TianXinFu obtained the Permit for Medical Device Operation for engaging in the operations of certain Class III medical devices on July 15, 2016, which will expire on March 1, 2020.

Pricing

Prior to June 1, 2015, retail prices of certain pharmaceutical products were subject to various price-related regulations. According to the "Regulations on Controlling Blood Products" promulgated by the PRC State Council in 1996, regional offices of the Pricing Bureau and the NHC had the authority to regulate retail prices for controlled plasma products. Effective on June 1, 2015, the NDRC removed the retail price ceilings for all drug products (except for anesthetics and category I antipsychotics) in China. After the pricing ceiling for plasma products was removed, the pricing of our products is mainly subject to the provincial tendering mechanism. In addition, retail prices of our plasma products fully or partially covered under the national insurance system are also affected by the reimbursement ceilings set out in the NRDL. See "Item 3.D. Key Information—Risk Factors—Risks Relating to Our Business—We do not have discretion to increase the prices of certain of our products, which are subject to the regional government tendering mechanism."

Two-invoice System

In order to further optimize the order of purchasing and selling pharmaceutical products and reduce circulation steps, as required by the 2016 List of Major Tasks in Furtherance of the Healthcare and Pharmaceutical Reforms issued by the General Office of the State Council on April 21, 2016, the "two-invoice System" will be fully implemented in the PRC. According to the Circular on Issuing the Implementing Opinions on Carrying out the Two-invoice System for Drug Procurement among Public Medical Institutions (for Trial Implementation), or Circular 4, which was effective from December 26, 2016, the two-invoice system means one invoice between the pharmaceutical manufacturer and the pharmaceutical distributor, and one invoice between the pharmaceutical distributor and the hospital, and thereby only allows a single level of distributor for the sale of pharmaceutical products from the pharmaceutical manufacturer to the hospital. According to Circular 4, two-invoice system will be promoted in pilot provinces (autonomous regions and municipalities directly under the Central Government) involved in the comprehensive medical reform program and pilot cities for public hospital reform on a priority basis, while other regions are encouraged to implement such system, so that such system can be promoted in full swing nationwide in 2018.

Taxation

Enterprise Income Tax

On March 16, 2007, the National People's Congress of China passed the Enterprise Income Tax Law, or the EIT Law, as most recently amended on December 29, 2018, and on November 28, 2007, the PRC State Council passed its implementation rules, which became effective on January 1, 2008. The EIT Law and its implementation rules impose a unified EIT of 25.0% on all domestic-invested enterprises and foreign investment enterprises, or FIEs, unless they qualify under certain limited exceptions. According to the EIT Law and its implementation rules, the income tax rate of an enterprise that has been determined to be a high and new technology enterprise may be reduced to 15.0% with the approval of relevant tax authorities.

In addition to the changes to the tax structure, under the EIT Law, an enterprise established outside of China with "*de facto* management bodies" within China is considered a resident enterprise and will normally be subject to an EIT of 25.0% on its global income. The implementation rules define the term "de facto management bodies" as "an establishment that exercises, in substance, overall management and control over, among others, the production, business, recruitment and accounting aspects of a Chinese enterprise."

If the PRC tax authorities subsequently determine that we should be classified as a resident enterprise, then our global income will be subject to PRC income tax of 25%. For detailed discussion of PRC tax issues related to resident enterprise status, see "Item 3.D. Key Information—Risk Factors—Risks Relating to Doing Business in China—Under the Enterprise Income Tax Law, we may be classified as a "resident enterprise" of China. Such classification will likely result in unfavorable tax consequences to us and our non-PRC shareholders."

The EIT Law confirmed that qualified high and new technology enterprises may enjoy a preferential income tax rate of 15%, instead of the uniform enterprise income tax rate of 25%. The PRC Ministry of Science and Technology, the PRC Ministry of Finance and the State Administration of Taxation, or SAT, jointly promulgated the Measures for Determination of High and New Technology Enterprise January 29, 2016 to provide the detailed rules for the examination of qualifications and approval of certificates for high and new technology enterprises. Each high and new technology enterprise certificate is valid for three years.

Shandong Taibang was recognized by Shandong provincial government as a high and new technology enterprise in 2008 and the latest renewal of its qualification was obtained in December 2017, which entitled it to continue to enjoy a preferential income tax rate of 15.0% for a three-year period from 2017 to 2019. Guizhou Taibang was recognized by Guizhou provincial government as a high and new technology enterprise and the latest renewal of its qualification was obtained in November 2017, which entitled it to continue to enjoy a preferential income tax rate of 15.0% for a three-year period from 2017 to 2019. TianXinFu was recognized by Beijing provincial government as a high and new technology enterprise in 2009 and the latest renewal of its qualification was obtained in September 2018, which entitled TianXinFu to enjoy a preferential income tax rate of 15.0% till the end of 2020. Huitian was recognized by Beijing provincial government as a high and new technology enterprise in 2009 and the latest renewal of its qualification was obtained in October 2017, which entitled Huitian to enjoy a preferential income tax rate of 15.0% from 2017 to 2019.

According to Notice on Issues Concerning Relevant Tax Policies in Deepening the Implementation of the Western Development Strategy jointly promulgated by the PRC Ministry of Finance, the PRC General Administration of Customs and SAT on July 27, 2011, enterprises located in the western region of China which have at least 70.0% of their income from the businesses falling within the Category of Encouraged Industries in western region of China may enjoy a preferential income tax of 15.0% within the period from January 1, 2011 to December 31, 2020. Guizhou Taibang, being a qualified enterprise located in the western region of China, enjoys a preferential income tax rate of 15.0% effective from January 1, 2011 to December 31, 2020.

Foreign currency exchange

The principal regulations on foreign currency exchange in the PRC is the Regulations of the People's Republic of China on Foreign Exchange Control, promulgated by the State Council on January 29, 1996, and as most recently amended on August 5, 2008. Under these regulations, RMB is freely convertible for current account items, such as trade and service-related foreign exchange transactions, but not for capital account items, such as direct investment, loan or investment in securities outside China unless the prior approval of, and/or registration with SAFE or its local counterparts (as the case may be) is obtained.

Pursuant to the Regulations of the People's Republic of China on Foreign Exchange Control Rules, FIEs in China may purchase foreign currency without the approval of SAFE for trade and service-related foreign exchange transactions by providing commercial documents evidencing these transactions. They may also retain foreign exchange (subject to a cap approved by SAFE) to satisfy foreign exchange liabilities or to pay dividends. In addition, if a foreign company acquires a company in China, the acquired company will also become an FIE. However, the relevant PRC government authorities may limit or eliminate the ability of FIEs to purchase and retain foreign currencies in the future. In addition, foreign exchange transactions for direct investment, loan and investment in securities outside China are still subject to limitations and require approvals from, and/or registration with, SAFE.

On June 1, 2015, the Notice of the State Administration of Foreign Exchange on Reforming the Administrative Approach Regarding the Settlement of the Foreign Exchange Capitals of Foreign-invested Enterprises came into effect and then was specified by the Notice of the State Administration of Foreign Exchange on Reforming and Standardizing the Administrative Provisions on Capital Account Foreign Exchange Settlement promulgated on June 9, 2016, which deepened the reform of the foreign exchange administration system and helped meet the needs of FIEs for business and fund operations. This notice allows FIEs to settle their foreign exchange capitals on a discretionary basis. Moreover, the Provisions on Foreign Exchange Administration Over Direct Investment Made by Foreign Investors in the PRC were promulgated by the SAFE on May 10, 2013 in order to promote and facilitate foreign investors to make direct investment in the PRC, which allow a FIE that needs to remit funds abroad to purchase and remit foreign exchange with the relevant bank due to capital reduction, liquidation, advance recovery of investment, profit distribution, etc. after due registration.

SAFE promulgated the Circular on Further Improving Reform of Foreign Exchange Administration and Optimizing Authenticity and Compliance Verification, or SAFE Circular 3, effective on January 26, 2017. SAFE Circular 3 relaxes the policy restriction on foreign exchange inflow to further enhance trade and investment facilitation, including expanding the scope of foreign exchange settlement for domestic foreign exchange loans, allowing the capital repatriation for offshore financing backed by domestic guarantee, facilitating the centralized management of foreign exchange funds of multinational companies, and allowing the offshore institutions within pilot free trade zones to settle foreign exchange in domestic foreign exchange accounts. SAFE Circular 3 also tightens the authenticity and compliance verification process of cross-border transactions and cross-border capital flow, such as requiring banks to verify board resolutions, tax filing form, and audited financial statements before wiring foreign invested companies' foreign exchange distribution above US$50,000.

Dividend distributions

Under applicable PRC regulations, FIEs in China may pay dividends only out of their accumulated profits, if any, determined in accordance with PRC accounting standards and regulations. In addition, an FIE in China is required to set aside at least 10% of its after-tax profit based on PRC accounting standards each year to its general reserves until the accumulative amount of such reserves reaches 50% of its registered capital. These reserves are not distributable as cash dividends. The board of directors of an FIE also has the discretion to allocate a portion of its after-tax profits to staff welfare and bonus funds, which may not be distributed to equity owners except in the event of liquidation.

In addition, under the EIT law, the Notice of the State Administration of Taxation on Negotiated Reduction of Dividends and Interest Rates, promulgated on January 29, 2008, the Arrangement between the PRC and the Hong Kong Special Administrative Region on the Avoidance of Double Taxation and Prevention of Fiscal Evasion, or the Double Taxation Treaty, which became effective on August 21, 2006, and the Notice of the State Administration of Taxation Regarding Beneficial Owners under Tax Treaties, which became effective on February 3, 2018, dividends from our PRC subsidiary, Taibang Biotech (Shandong) Co., Ltd., paid to us through our Hong Kong subsidiary, Taibang Holdings, may be subject to a withholding tax at a rate of 10%, or at a rate of 5% if Taibang Holdings is considered a “beneficial owner” that is generally engaged in substantial business activities in Hong Kong and entitled to treaty benefits under the Double Taxation Treaty.

Our Employees

As of December 31, 2018, 2017 and 2016, we employed 2,187, 1,912 and 1,799 full-time employees, respectively, of which 27, 41 and 48, respectively, were seconded to us by Shandong Institute of Biological Products, or the Shandong Institute. As of December 2018, we had 54 employees in our headquarter in Beijing, 632 employees in the production facility in Shandong Province, 415 employees in the production facility in Guizhou Province, 151 employees in the production facility in Beijing, and 935 employees in total in our plasma collection stations in Shandong, Guizhou, Hebei and Guangxi.

We believe we are in material compliance with all applicable labor and safety laws and regulations in China. We participate in various employee benefit plans that are organized by municipal and provincial governments, including retirement, medical, unemployment, work injury and maternity benefit plans for our managerial and key employees. In addition, we provide short term insurance plans for certain employees while on duty to cover work related accidents. We believe that we maintain a satisfactory working relationship with our employees and we have not experienced any significant labor disputes or any difficulties in recruiting staff for our operations.

C. Organizational Structure

The following chart reflects our current corporate structure as of the date of this report:

(1) Pursuant to an investment entrustment agreement dated September 12, 2008, Shandong Taibang holds the 35.0% equity interest in Huitian as a nominee for the benefit of Taibang Biological. For further details on the investment entrustment agreement, see our Current Report on Form 8-K filed with the SEC on October 16, 2008.

(2) On January 1, 2018, we acquired 100% equity interest in Health Forward Holding Limited, a holding company organized under the laws of Hong Kong, which in turn holds 80% equity interest in TianXinFu.

(3) On November 22, 2018, Taibang Biotech (Shandong) Co., Ltd. established Taina Dabang (Shanghai) Medical Technology Co., Ltd., the principal activities of which are sales and various advisory services related to biotechnology and medical technology.

D. Property, Plants and Equipment

Our corporate offices, which occupy approximately 1,348 square meters, are leased and located at 18th Floor, Jialong International Building, 19 Chaoyang Park Road, Chaoyang District, Beijing 100125, the People's Republic of China. The information of other material properties is listed as below.

Business	Location	Approximate Size (square meters)	Owned/Leased
Manufacturing Facilities	Taishan District, Tai'an City, Shandong Province, China	15,489	Owned
	Gaoxin District, Tai'an City, Shandong Province, China	91,335	Owned
	Huaxi District, Guiyang City, Guizhou Province, China	13,282	Owned
	Changping District, Beijing City, China	6,385	Owned

We believe that all of our properties have been adequately maintained, are generally in good condition, and are suitable and adequate for our business.

ITEM 4A. UNRESOLVED STAFF COMMENTS.

None.

ITEM 5. OPERATING AND FINANCIAL REVIEW AND PROSPECTS

The following discussion of our financial condition and results of operations is based upon and should be read in conjunction with our financial statements and the notes thereto and the other financial information appearing elsewhere in this report. In addition to historical information, the following discussion contains certain forward-looking information. See "Special Note Regarding Forward Looking Statements" above for certain information concerning those forward looking statements. In evaluating our business, you should carefully consider the information provided under the caption "Item 3.D. Key Information—Risk Factors" in this annual report. We caution you that our businesses and financial performance are subject to substantial risks and uncertainties. Our financial statements are prepared in U.S. dollars and in accordance with United States generally accepted accounting principles.

A. Operating Results

Overview

We are principally engaged in the research, development, manufacturing and sales of plasma products in China. We also develop, manufacture and market certain other biopharmaceutical products and regenerative medical biomaterial products.

We have a strong biopharmaceutical product portfolio with over 20 different dosage forms of plasma products across nine categories and other biopharmaceutical products. Our principal biopharmaceutical products are human albumin and IVIG. These products use human plasma as their principal raw material. Sales of human albumin products represented approximately 32.0%, 35.8% and 39.2% of our total sales for 2018, 2017 and 2016, respectively. Sales of IVIG products represented approximately 24.3%, 31.7% and 34.6% of our total sales for 2018, 2017 and 2016, respectively. All of our biopharmaceutical products are prescription medicines administered in the form of injections.

Our regenerative medical biomaterial products mainly include bio-artificial dura mater and spinal dura mater products which are applied in brain and spinal surgeries.

Our sales model focuses on direct sales to hospitals and inoculation centers and is complemented by distributor sales. In 2018, we generated sales of $466.9 million, an increase of 26.1% from 2017, and recorded net income attributable to our Company of $128.1 million, an increase of 88.7% from 2017, after factoring in $7.5 million income tax reversal and $40.3 million income tax charge respectively in 2018 and 2017, related to the new U.S. income tax law that went into effect on December 22, 2017 (the "U.S. Tax Reform").

Financial Performance Highlights

The following are some financial highlights for 2018:

- ***Sales***: Sales increased by $96.5 million, or 26.1%, to $466.9 million for 2018 from $370.4 million for 2017. Excluding TianXinFu, sales increased by $51.8 million, or 14.0%, to $422.2 million for 2018 from $370.4 million for 2017.

- ***Gross Profit***: Gross profit increased by $75.2 million, or 30.7%, to $320.1 million for 2018 from $244.9 million for 2017. As a percentage of sales, gross profit increased from 66.1% in 2017 to 68.6% in 2018.

- ***Income from operations***: Income from operations increased by $10.3 million, or 7.6%, to $146.2 million for 2018 from $135.9 million for 2017. Operating margin decreased to 31.3% in 2018 from 36.7% in 2017. Excluding TianXinFu, income from operations decreased by 7.2% in RMB terms and 5.1% in USD terms in 2018 compared to 2017, and operating margin decreased to 30.6% from 36.7% in 2017.

- ***Net income attributable to our Company***: Net income attributable to our Company, factoring in $7.5 million income tax reversal and $40.3 million income tax charge related to the U.S. tax reform, respectively in 2018 and 2017, increased by $60.2 million, or 88.7%, to $128.1 million for 2018 from $67.9 million for 2017. Excluding TianXinFu and factoring in the income tax reversal and charges, net income attributable to the Company increased by 63.6% in RMB terms and 69.4% in USD terms in 2018 compared to 2017.

- ***Fully diluted earnings per share***: Fully diluted earnings per share was $3.53 for 2018, as compared to $2.38 for 2017.

Principal Factors Affecting Our Financial Performance

The following are key factors that affect our financial condition and results of operations and we believe them to be important to the understanding of our business:

Raw material supply and prices

The primary raw material used in the production of our albumin, immunoglobulin and coagulation factor products is human plasma. The collection of human plasma in China is generally influenced by a number of factors such as government regulations, geographical locations of plasma collection stations, sanitary conditions of plasma collection stations, living standards of the donors, and cultural and religious beliefs. If we experience any shortage of plasma supply, we may not be able to fully utilize our production capacity. We currently operate 15 plasma collection stations (including two branch collection facilities) through Shandong Taibang and two plasma collection stations through Guizhou Taibang. These plasma collection stations provide us with a stable source of plasma supply.

Biological collagen is the primary raw material for our biomaterial products. The supply and market prices of biological collagen may be adversely affected by intense competition and availability and conditions of supply.

Prices of and demand for our products

The demand for our products is largely affected by the general economic conditions in China because the prices of our products are still not affordable to many patients. A significant improvement in the economic environment in China will likely improve consumer income which in turn would make our products more affordable and consequently increase the demand for our products. We have been able to expand our product range and consumer base by introducing new products required by customers. We believe that our technical expertise is important in introducing products that are in demand.

Production capacity

Our sales volume is limited by our annual production capacity. As we grow our business in the future, our ability to fulfill additional and larger orders will depend on our ability to increase our production capacity. Our plan to expand our production capacity will depend on the availability of capital to meet our needs of expansion or upgrading of production lines, and the availability of stable raw material supply. To comply with applicable PRC laws and regulations, we have maintained permits and licenses necessary for the current operations of our plasma collection stations and production plants, and are required to apply for such permits and licenses to operate new plasma collection stations and production plants. As a result, our expansion plan also depends on our ability to renew existing permits and licenses and obtain new permits and licenses.

Competition

We face intense competition from local and foreign entities that manufacture and sell products that compete with ours in the PRC. These competitors may have more capital, better research and development resources, expanded manufacturing and marketing capabilities and more experience than we do. In our industry, we compete based upon product quality, production cost, ability to produce a diverse range of products and logistical capabilities.

Our profitability may be adversely affected if competition intensifies, competitors reduce prices, PRC government requires us to reduce the prices of our products, or competitors develop new products or product substitutes with comparable medicinal applications or therapeutic effects which are more effective or less costly than ours. See “Item

4.B. Information on the Company—Business Overview—Business—Competition" for more information.

Taxation

As of December 31, 2018, China Biologic is subject to United States tax at gradual rates of up to 35.0%. On December 22, 2017, President Trump signed into law the "Tax Cuts and Jobs Act," which may impact our U.S. tax obligations. See "Item 3.D. Key Information—Risk Factors—Risks Relating to Our Business—The recently enacted tax reform bill could adversely affect our business and financial condition."

Taibang Biological is incorporated in the BVI, but is not subject to taxation in that jurisdiction.

Taibang Holdings is incorporated in Hong Kong, and under the current laws of Hong Kong, is subject to a Profits Tax of 16.5% on profits arising in Hong Kong. However, no provision for Hong Kong Profits Tax has been made as Taibang Holdings has no taxable income.

Health Forward is incorporated in Hong Kong, and under the current laws of Hong Kong, is subject to a Profits Tax of 16.5% on profits arising in Hong Kong. However, no provision for Hong Kong Profits Tax has been made as Health Forward has no taxable income.

According to the PRC government policy, new or high technology companies may enjoy a preferential income tax rate of 15.0%, instead of 25.0% under the EIT Law. In October 2017, Shandong Taibang renewed its high and new technology enterprise qualification, which entitled it to enjoy a preferential income tax rate of 15.0% for a period of three years from 2017 to 2019. TianXinFu was recognized by Beijing provincial government as a high and new technology enterprise since 2009 and renewed the certificate in 2018, as a result of which TianXinFu is entitled to enjoy a preferential income tax rate of 15.0% for a period of three years from 2018 to 2020. According to Notice on Issues Concerning Relevant Tax Policies in Deepening the Implementation of the Western Development Strategy jointly promulgated by the PRC Ministry of Finance, the PRC General Administration of Customs and SAT dated July 27, 2011, Guizhou Taibang, being a qualified enterprise located in the western region of China, enjoys a preferential income tax rate of 15.0% effective from January 1, 2011 to December 31, 2020. All of our other PRC subsidiaries are subject to the statutory income tax rate of 25.0%.

Critical Accounting Policies

The preparation of financial statements in conformity with United States generally accepted accounting principles, or U.S. GAAP, requires our management to make assumptions, estimates and judgments that affect the amounts reported

in the financial statements, including the notes thereto, and related disclosures of commitments and contingencies, if any. We consider our critical accounting policies to be those that require the more significant judgments and estimates in the preparation of financial statements, including the following:

Allowance for doubtful accounts

We maintain an allowance for doubtful accounts for estimated losses inherent in its accounts receivable portfolio. In establishing the required allowance, management considers historical losses, the customers' financial condition, the amount of accounts receivable in dispute, the accounts receivable aging and customers' payment patterns. We review our allowance for doubtful accounts monthly. Past due balances are reviewed individually for collectability. Account balances are charged off against the allowance after all means of collection have been exhausted and the potential for recovery is considered remote. We do not have any off-balance-sheet credit exposure related to our customers.

Before 2017, we generally asked our distributors to pay in advance before we delivered products and granted a credit period of no longer than 90 days to hospitals and clinics. In 2017, as a result of the nationwide implementation of healthcare reform measures and the intensified competition for access to distribution channels, we extended the credit period for both distributors and hospitals and clinics depending on the relevant parties' creditability. The average accounts receivable turnover day for plasma products was 95 days in 2018. We have provided a bad debt allowance of $655,148, $23,783 and $123,239 respectively for 2018, 2017 and 2016.

Business Combination

We accounts for our business combination using the acquisition method in accordance with ASC Topic 805 ("ASC 805"): Business Combinations. An acquirer is required to recognize the identifiable acquired assets, the liabilities assumed, and any noncontrolling interest in the acquiree at the acquisition date, measured at their fair values as of that date. The consideration transferred of an acquisition is measured as the aggregate of the fair values at the date of exchange of the assets given, liabilities incurred, and equity instruments issued as well as the contingent considerations and all contractual contingencies as of the acquisition date. The costs directly attributable to the acquisition are expensed as incurred. The excess of (i) the total purchase price and fair value of the non-controlling interests over (ii) the fair value of the identifiable net assets of the acquiree, is recorded as goodwill.

Long-lived assets

As of December 31, 2018 and 2017, our long-lived assets primarily consisted of property, plant, equipment, intangible assets, land use rights and goodwill.

We depreciate and amortize our property, plant, equipment, intangible assets with finite useful life and land use rights using the straight-line method over the estimated useful lives of the assets. We make estimates of the useful lives of plant and equipment (including the salvage values), intangible assets and land use rights, in order to determine the amount of depreciation expense to be recorded during each reporting period. We estimate the useful lives at the time the assets are acquired based on historical experience with similar assets as well as anticipated technological or other changes.

Long-lived assets, including property, plant and equipment, land use rights and intangible assets subject to amortization, are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. If circumstances require a long-lived asset or asset group be tested for possible impairment, we first compare undiscounted cash flows expected to be generated by that asset or asset group to its carrying value. If the carrying value of the long-lived asset or asset group is not recoverable on an undiscounted

cash flow basis, an impairment is recognized to the extent that the carrying value exceeds its fair value. Fair value is determined through various valuation techniques including discounted cash flow models, quoted market values and third-party independent appraisals, as considered necessary.

Goodwill represents the excess of the aggregate purchase price over the fair value of identifiable assets acquired and liabilities assumed. Goodwill is not amortized, but is tested for impairment at the reporting unit level on at least an annual basis and more frequently when an event occurs or circumstances change that would more likely than not reduce the fair value of a reporting unit below its carrying amount. When performing an evaluation of goodwill impairment, we have elected the option to first assess qualitative factors, such as significant events and changes to expectations and activities that may have occurred since the last impairment evaluation, to determine if it is more likely than not that goodwill might be impaired. If as a result of the qualitative assessment, that it is more likely than not that the fair value of the reporting unit is less than its carrying amount, the quantitative fair value test is performed to determine if the fair value of the reporting unit exceeds its carrying value.

In January 2017, the FASB issued ASU No. 2017-04, *Intangibles—Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment* ("ASU 2017-04"). ASU 2017-04 simplifies the subsequent measurement of goodwill by eliminating Step 2 of the goodwill impairment test. In computing the implied fair value of goodwill under Step 2, an entity had to perform procedures to determine the fair value at the impairment testing date of its assets and liabilities (including unrecognized assets and liabilities) following the procedure that would be required in determining the fair value of assets acquired and liabilities assumed in a business combination. As a result of ASU 2017-04, an entity should perform its goodwill impairment test by comparing the fair value of a reporting unit with its carrying amount and then recognize an impairment charge, as necessary, for the amount by which the carrying amount exceeds the reporting unit's fair value, not to exceed the total amount of goodwill allocated to that reporting unit. ASU 2017-04 is effective for fiscal years and interim periods within those years beginning after December 15, 2019, and early adoption is permitted for interim or annual goodwill impairment tests performed after January 1, 2017.

We have adopted ASU 2017-04 for annual goodwill impairment tests from January 1, 2018. This guidance removes Step 2 of the goodwill impairment test, which required the estimation of an implied fair value of goodwill in the same manner as the calculation of goodwill upon a business combination.

Results of Operations

The following table sets forth a summary of our consolidated statements of comprehensive income for the periods indicated. Our historical results presented below are not necessarily indicative of the results that may be expected for any other future period.

	For the Years Ended December 31,					
	2018		2017		2016	
	$	% of Total Sales	$	% of Total Sales	$	% of Total Sales
	(U.S. dollars in thousands, except percentage and per share data)					
SALES	466,878	100.0	370,407	100.0	341,169	100.0
COST OF SALES	146,787	31.4	125,517	33.9	124,034	36.4
GROSS PROFIT	320,091	68.6	244,890	66.1	217,135	63.6
OPERATING EXPENSES						
Selling expenses	95,576	20.5	34,844	9.4	11,679	3.4
General and administrative expenses	68,817	14.8	67,684	18.3	54,519	16.0
Research and development expenses	9,524	2.0	6,504	1.7	7,022	2.1
Total operating expenses	173,917	37.3	109,032	29.4	73,220	21.5
INCOME FROM OPERATIONS	146,174	31.3	135,858	36.7	143,915	42.1
OTHER INCOME (EXPENSES)						
Equity in income of equity method investee	2,369	0.5	3,509	0.9	2,519	0.7
Interest income	13,707	3.0	7,624	2.1	7,816	2.3
Interest expense	(338)	(0.1)	(583)	(0.2)	(254)	-
Loss from disposal of a subsidiary	-	-	-	-	(76)	-
Other income, net	4,093	0.9	-	-	-	-
Total other income, net	19,831	4.3	10,550	2.8	10,005	3.0
INCOME BEFORE INCOME TAX EXPENSE	166,005	35.6	146,408	39.5	153,920	45.1
INCOME TAX EXPENSE	18,036	3.9	64,172	17.3	25,126	7.4
NET INCOME	147,969	31.7	82,236	22.2	128,794	37.7
Less: Net income attributable to noncontrolling interest	19,911	4.3	14,293	3.9	24,014	7.0
NET INCOME ATTRIBUTABLE TO COMPANY	128,058	27.4	67,943	18.3	104,780	30.7
EARNINGS PER SHARE OF ORDINARY SHARES						
BASIC	3.54		2.40		3.79	
DILUTED	3.53		2.38		3.74	

Comparison of years ended December 31, 2018 and 2017

Sales

Our total sales increased by 26.1%, or $96.5 million, to $466.9 million for 2018, compared to $370.4 million for 2017. In RMB terms, our total sales increased by 23.5% for 2018 as compared to 2017. The increase in sales for 2018 was partly attributable to a $44.7 million contribution from TianXinFu, which accounted for approximately 9.6% of total sales for 2018. Excluding TianXinFu, total sales in 2018 increased by 11.7% in RMB terms as a result of increases in the sales of placenta polypeptide products, human albumin products, certain special immunoglobulin products, and coagulation factor products, which was partly offset by decreases in the sales of IVIG products. For plasma products, total sales in 2018 increased by 8.0% in RMB terms, or 10.2% in USD terms, to $354.0 million from $321.2 million in 2017.

The following table summarizes the breakdown of sales by product categories:

	For the Years Ended December 31,				**Change**	
	2018		**2017**			
	$	**%**	**$**	**%**	**Amount**	**%**
	(U.S. dollars in millions, except percentage)					
Plasma products						
Human albumin	149.4	32.0	132.5	35.8	16.9	12.8
Immunoglobulin products:						
IVIG	113.5	24.3	117.5	31.7	(4.0)	(3.4)
Other immunoglobulin products	59.5	12.7	50.1	13.5	9.4	18.8
Others	31.6	6.8	21.1	5.7	10.5	49.8
Placenta polypeptide	68.2	14.6	49.2	13.3	19.0	38.5
Biopharmaceutical products	422.2	90.4	370.4	100.0	51.8	14.0
Artificial Dura Mater	40.6	8.7	-	-	40.6	-
Others	4.1	0.9	-	-	4.1	-
Biomaterial products	44.7	9.6	-	-	44.7	-
Totals	466.9	100.0	370.4	100.0	96.5	26.1

As a percentage of total sales, sales from human albumin products and IVIG products accounted for 32.0% and 24.3%, respectively, for 2018. Excluding the contribution from TianXinFu, human albumin and IVIG products were 35.4% and 26.9% of total sales, respectively.

The average prices for human albumin and IVIG products decreased by 5.6% and 2.3%, respectively, in RMB terms in 2018 compared to 2017 because of greater sales volume in the distributor channel and lower prices to certain distributors reflecting intensified market competition for major plasma products. In USD terms, the average price for human albumin decreased by 3.6% in 2018 compared to 2017, and the average price for IVIG remained stable in 2018 compared to 2017.

The sales volume of our products depends on market demand and our production volume. The production volume of our human albumin products and IVIG products depends primarily on the general plasma supply. The production volume of our hyper-immune products, which include human rabies immunoglobulin, human hepatitis B immunoglobulin and human tetanus immunoglobulin products, is subject to the availability of specific vaccinated plasma and our production capacity. The supply of specific vaccinated plasma requires several months of lead time. Our production facility currently can only accommodate the production of one type of hyper-immune products at any given time and we rotate the production of different types of hyper-immune products from time to time in response to market demand. As such, the sales volume of any given type of hyper-immune products may vary significantly from period to period.

The sales volume of our human albumin increased by 17.0% in 2018 as compared to 2017, primarily due to increased sales volumes in the distributor and pharmacy channels, which was partly offset by decreased prescription volumes at various hospitals due to the ongoing healthcare regulatory changes in China. The sales volume of IVIG products decreased by 3.4% for 2018 compared to 2017, mainly reflecting decreased prescription volumes at various hospitals with the same effect of policy headwinds to human albumin.

The sales increase of other immunoglobulin products for 2018 as compared to 2017 was mainly attributable to the increase in sales volume of both human rabies immunoglobulin and human tetanus immunoglobulin products.

Revenue from other plasma products, including human coagulation factor VIII, human prothrombin complex concentrate, and the newly launched human fibrinogen products, increased by 47.9% in RMB terms, or 49.8% in USD terms, in 2018 compared to 2017, representing 6.8% of total sales of 2018. The growth mainly came from the launch of our human fibrinogen products in the beginning of 2018, and the increased sales volumes of our human coagulation factor VIII and human prothrombin complex concentrate products, which is reflective of our ongoing medical marketing activities.

Revenue from placenta polypeptide products increased by 38.5% for 2018 as compared to 2017, reaching 14.6% of total sales of 2018, which was supported by higher unit selling prices in connection with the wider implementation of the two-invoice policy. However, the sales volume of placenta polypeptide products declined as a result of their inclusion in regional adjuvant drug lists, which put pressure on their prescription volume.

Cost of sales & gross profit

	For the Years Ended December 31,		Change	
	2018	2017	Amount	%
	(U.S. dollars in millions, except percentage)			
Cost of sales	$ 146.8	$ 125.5	$ 21.3	17.0
as a percentage of total sales	31.4 %	33.9 %		(2.5)
Gross Profit	$ 320.1	$ 244.9	$ 75.2	30.7
Gross Margin	68.6 %	66.1 %		2.5

Our cost of sales was $146.8 million, or 31.4% of our sales, for 2018, as compared to $125.5 million, or 33.9% of our sales for 2017. Our gross profit was $320.1 million and $244.9 million for 2018 and 2017, respectively, representing gross margins of 68.6% and 66.1%, respectively.

Our cost of sales and gross margin are affected by the product pricing, raw material costs, product mix, yields and manufactory efficiency. In an effort to increase plasma collection volume and expand our donor base, we increased the nutrition fees paid to donors consistent with the industry practice. We expect the nutrition fees to be paid to donors will continue to increase as a result of improving living standards in China. Consequently, future improvements on margins will need to be derived from increases in product pricing, yields and manufacturing efficiency, as well as from optimizing the product mix.

The decrease in cost of sales as a percentage of total sales mainly reflected the higher gross margin of TianXinFu. Excluding TianXinFu, cost of sales decreased to 33.6% of total sales, mainly because of a higher sales price for our placenta polypeptide product, which was partly offset by lower sales prices for our human albumin and IVIG products.

Operating expenses

	For the Years Ended December 31,		Change	
	2018	2017	Amount	%
	(U.S. dollars in millions, except percentage)			
Operating expenses	$ 173.9	$ 109.0	$ 64.9	59.5
as a percentage of total sales	37.3 %	29.4 %		7.9

Our total operating expenses increased by $64.9 million, or 59.5%, to $173.9 million for 2018 from $109.0 million for 2017. As a percentage of total sales, total expenses increased by 7.9% to 37.3% for 2018 from 29.4% for 2017. Excluding TianXinFu, total operating expenses increased by $42.5 million, or 39.0%, to $151.5 million for 2018. This increase (excluding TianXinFu) mainly consisted of an increase of $43.6 million in selling expenses, partially offset by a decrease of $1.8 million in general and administrative expenses.

Selling expenses

	For the Years Ended December 31,		Change	
	2018	2017	Amount	%
	(U.S. dollars in millions, except percentage)			
Selling expenses	$ 95.6	$ 34.8	$ 60.8	174.7
as a percentage of total sales	20.5 %	9.4 %		11.1

For 2018, our selling expenses increased by $60.8 million, or 174.7%, to $95.6 million from $34.8 million for 2017. Nearly half of the increase came from selling expenses associated with placenta polypeptide products with the remainder related to the sales of plasma products and TianXinFu's sales of its dura mater products. For placenta polypeptide products and certain hyper-immune products, as certain previous multi-layer distribution channels were disqualified due to the two-invoice policy, we implemented new sales strategies including using internal sales force or engaging third-party contract service entities to promote our products. For other plasma products, in order to strengthen our competitiveness in front of distribution channel customers, we incurred additional promotion and marketing costs. TianXinFu's selling expenses included an amortization expense of $7.7 million for the intangible asset of customer relationships associated with our acquisition of TianXinFu. Excluding this intangible asset amortization expense, selling expenses accounted for 18.8% of total sales in 2018 compared to 9.4% in 2017.

General and administrative expenses

	For the Years Ended December 31,		Change	
	2018	2017	Amount	%
	(U.S. dollars in millions, except percentage)			
General and administrative expenses	$ 68.8	$ 67.7	$ 1.1	1.6
as a percentage of total sales	14.8 %	18.3 %		(3.5)

For 2018, our general and administrative expenses increased by $1.1 million, or 1.6%, to $68.8 million from $67.7 million for 2017. As a percentage of total sales, general and administrative expenses decreased to 14.8% for 2018 from 18.3% for 2017. The slight increase in general and administrative expenses from 2017 to 2018 was a combined result of 1) general and administrative expenses of TianXinFu; 2) increased legal fees mainly in relation to the lawsuit filed against us in the Cayman Islands by Mr. David (Xiaoying) Gao, our former Chairman and CEO whose employment with us had previously been terminated for cause; and 3) Shandong Taibang's increased depreciation expenses and property tax for its new facility, which was partially offset by a decrease in share-based compensation expenses.

Research and development expenses

	For the Years Ended December 31,		Change	
	2018	2017	Amount	%
	(U.S. dollars in millions, except percentage)			
Research and development expenses	$ 9.5	$ 6.5	$ 3.0	46.2
as a percentage of total sales	2.0 %	1.7 %		0.3

For 2018, our research and development expenses increased by $3.0 million, or 46.2%, to $9.5 million from $6.5 million for 2017. In 2018 and 2017, we received government grants totaling $0.7 million and $0.4 million, respectively, and recognized them as a reduction of research and development expenses. Excluding this impact, our research and development expenses increased by $3.3 million for 2018 from 2017. As a percentage of total sales, our research and development expenses, excluding the impact of these recognized government grants, increased to 2.2% for 2018 from 1.9% for 2017. The increase mainly consisted of TianXinFu's research and development expenses.

Equity in income of equity method investee

Our equity method investment represented our 35.0% equity interest in Huitian, our equity method investee. For 2018, our equity in income of equity method investee decreased by $1.1 million to $2.4 million from $3.5 million for 2017.

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Income tax expense

	For the Years Ended December 31,		Change	
	2018	2017	Amount	%
	(U.S. dollars in millions, except percentage)			
Income tax expense	$ 18.0	$ 64.2	$ (46.2)	(72.0)
Effective income tax rate	10.9 %	43.8 %		(32.9)

Our provision for income taxes decreased by $46.2 million, or 72.0%, to $18.0 million for 2018 from $64.2 million for 2017. For the year ended December 31, 2017, we recorded an income tax charge of $40.3 million, which represented the management's estimate of the amount of U.S. corporate income tax based on the deemed repatriation to the United States of our accumulated earnings mandated by the U.S. Tax Reform. Based on new regulations and rules issued by the U.S. Department of the Treasury in August 2018, the management reassessed the amount and reversed $7.5 million in the third quarter of 2018. Our effective income tax rates were 10.9% and 43.8% for 2018 and 2017, respectively. Excluding the impact of repatriation tax, our effective income tax rate was 15.4% and 16.3% for 2018 and 2017, respectively.

Comparison of years ended December 31, 2017 and 2016

Sales

Our total sales increased by 8.6%, or $29.2 million, to $370.4 million for 2017, compared to $341.2 million for 2016. In RMB terms, our total sales increased by 10.5% for 2017 as compared to 2016. The increase in sales for 2017 was primarily attributable to the increase in the sales of placenta polypeptide and certain immunoglobulin products.

The following table summarizes the breakdown of sales by product categories:

	For the Years Ended December 31,				Change	
	2017		2016			
	$	%	$	%	Amount	%
	(U.S. dollars in millions, except percentage)					
Human albumin	132.5	35.8	133.7	39.2	(1.2)	(0.9)

Immunoglobulin products:						
IVIG	117.5	31.7	117.9	34.6	(0.4)	(0.3)
Other immunoglobulin products	50.1	13.5	40.1	11.8	10.0	24.9
Placenta polypeptide	49.2	13.3	32.2	9.4	17.0	52.8
Others	21.1	5.7	17.3	5.0	3.8	22.0
Totals	370.4	100.0	341.2	100.0	29.2	8.6

For 2017 as compared to 2016:

- the average price for our approved human albumin products, which represented 35.8% of our total sales for 2017, decreased by 4.3% in USD terms and 2.5% in RMB terms, mainly due to the combined effect of both a decrease in prices charged to certain distributors, which reflected intensified market competition, and a lower sales proportion from the higher-unit-price dosages compared to 2016; and

- the average price for our approved IVIG products, which represented 31.7% of our total sales for 2017, decreased by 0.8% in USD terms and increased by 1.3% in RMB terms, mainly due to an increase in price we charged our major distributors.

The sales volume of our products depends on market demand and our production volume. The production volume of our human albumin products and IVIG products depends primarily on the general plasma supply. The production volume of our hyper-immune products, which include human rabies immunoglobulin, human hepatitis B immunoglobulin and human tetanus immunoglobulin products, is subject to the availability of specific vaccinated plasma and our production capacity. The supply of specific vaccinated plasma requires several months of lead time. Our production facility currently can only accommodate the production of one type of hyper-immune products at any given time and we rotate the production of different types of hyper-immune products from time to time in response to market demand. As such, the sales volume of any given type of hyper-immune products may vary significantly from period to period.

The sales volume of our human albumin increased by 3.5% in 2017 as compared to 2016, as a combined result of enhanced production volumes in Guizhou Taibang and reduced production volume in Shandong Taibang in connection with the old facility’s production suspension. The sales volume of our IVIG products remained stable for 2017 as compared to 2016.

The sales increase of other immunoglobulin products for 2017 as compared to 2016 was mainly attributable to the increase in both average sales price and sales volume of human rabies immunoglobulin products.

Revenue from placenta polypeptide products increased by 52.8% for 2017 as compared to 2016, reaching 13.3% of total sales, mainly attributable to a higher unit selling price following the wider implementation of the two-invoice policy across China in 2017, as well as an increase of 7.3% in sales volume.

Revenue from other plasma products, including human coagulation factor VIII and human prothrombin complex concentrate, increased by 22.0% in 2017 compared to 2016, representing 5.7% of total sales as compared to 5.0% of total sales in 2016. This growth reflects our ongoing medical marketing activities.

Cost of sales & gross profit

	For the Years Ended December 31,		Change	
	2017	2016	Amount	%
	(U.S. dollars in millions, except percentage)			
Cost of sales	$ 125.5	$ 124.0	$ 1.5	1.2
as a percentage of total sales	33.9 %	36.4 %		(2.5)
Gross Profit	$ 244.9	$ 217.2	$ 27.7	12.8
Gross Margin	66.1 %	63.6 %		2.5

Our cost of sales was $125.5 million, or 33.9% of our sales, for 2017, as compared to $124.0 million, or 36.4% of our sales for 2016. Our gross profit was $244.9 million and $217.2 million for 2017 and 2016, respectively, representing gross margins of 66.1% and 63.6%, respectively.

Our cost of sales and gross margin are affected by the product pricing, raw material costs, product mix, yields and manufactory efficiency. In an effort to increase plasma collection volume and expand our donor base, we increased the nutrition fees paid to donors consistent with the industry practice. We expect the nutrition fees to be paid to donors will continue to increase as a result of improving living standards in China. Consequently, future improvements on margins will need to be derived from increases in product pricing, yields and manufacturing efficiency, as well as from optimizing the product mix.

The decrease in cost of sales as a percentage of total sales was mainly due to the higher sales price of placenta polypeptide following the wider implementation of the two-invoice policy and a greater proportion of sales derived from certain hyper-immune and coagulation products with a higher profit margin.

Operating expenses

	For the Years Ended December 31,		Change	
	2017	2016	Amount	%
	(U.S. dollars in millions, except percentage)			
Operating expenses	$ 109.0	$ 73.2	$ 35.8	48.9
as a percentage of total sales	29.4 %	21.5 %		7.9

Our total operating expenses increased by $35.8 million, or 48.9%, to $109.0 million for 2017 from $73.2 million for 2016. As a percentage of total sales, total expenses increased by 7.9% to 29.4% for 2017 from 21.5% for 2016. The increase of the total operating expenses was primarily due to the increase of selling expenses, as well as the increase of general and administrative expenses as discussed below.

Selling expenses

	For the Years Ended December 31,		Change	
	2017	2016	Amount	%
	(U.S. dollars in millions, except percentage)			
Selling expenses	$ 34.8	$ 11.7	$ 23.1	197.4
as a percentage of total sales	9.4 %	3.4 %		6.0

For 2017, our selling expenses increased by $23.1 million, or 197.4%, to $34.8 million from $11.7 million for 2016. More than half of the increase comes from placenta polypeptide products and the remaining comes from plasma products. For placenta polypeptide products and certain hyper-immune products, as certain previous multiple layers of distribution channels were disqualified due to the two-invoice regulation, we implemented new sales strategies including using internal sales force or engaging third party contract service organizations to promote our products. For other plasma products, in order to solidify our competitiveness within distribution channel customers, we incurred more promotion and marketing activities. As a percentage of total sales, our selling expenses for 2017 increased to 9.4% from 3.4% for 2016.

General and administrative expenses

	For the Years Ended December 31,		Change	
	2017	2016	Amount	%
	(U.S. dollars in millions, except percentage)			
General and administrative expenses	$ 67.7	$ 54.5	$ 13.2	24.2
as a percentage of total sales	18.3 %	16.0 %		2.3

For 2017, our general and administrative expenses increased by $13.2 million, or 24.2%, to $67.7 million from $54.5 million for 2016. As a percentage of total sales, general and administrative expenses increased by 2.3% to 18.3% for 2017 from 16.0% for 2016. The increase in general and administrative expenses was mainly due to the increase of share-based compensation expenses of $9.5 million and $1.9 million expenses related to the redomicile merger and the acquisition of TianXinFu.

Research and development expenses

	For the Years Ended December 31,		Change	
	2017	2016	Amount	%
	(U.S. dollars in millions, except percentage)			
Research and development expenses	$ 6.5	$ 7.0	$ (0.5)	(7.1)
as a percentage of total sales	1.7 %	2.1 %		(0.4)

For 2017, our research and development expenses decreased by $0.5 million, or 7.1%, to $6.5 million from $7.0 million for 2016. In 2017 and 2016, we received government grants totaling $0.4 million and $0.8 million, respectively, and recognized them as a reduction of research and development expenses. Excluding this impact, our research and development expenses decreased by $0.9 million for 2017 from 2016. As a percentage of total sales, our research and development expenses, excluding the impact of these recognized government grants, decreased to 1.9% for 2017 from 2.3% for 2016.

Equity in income of equity method investee

Our equity method investment represented our 35.0% equity interest in Huitian, our equity method investee. For 2017, our equity in income of equity method investee increased by $1.0 million to $3.5 million from $2.5 million for 2016.

Income tax expense

	For the Years Ended December 31,		Change	
	2017	2016	Amount	%
	(U.S. dollars in millions, except percentage)			
Income tax expense	$ 64.2	$ 25.1	$ 39.1	155.8
Effective income tax rate	43.8 %	16.3 %		27.5

Our provision for income taxes increased by $39.1 million, or 155.8%, to $64.2 million for 2017 from $25.1 million for 2016. Income tax expense in 2017 includes a charge of $40.3 million, which represents management's estimate of

the amount of U.S. corporate income tax based on the deemed repatriation to the United States of accumulated earnings mandated by the U.S. tax reform. Our effective income tax rates were 43.8% and 16.3% for 2017 and 2016, respectively. Excluding the impact of repatriation tax for 2017, our effective income tax rate is 16.3%.

Foreign Currency Exchange Impact

All of our consolidated revenues and consolidated costs of sales and majority of expenses, as well as all of our assets (except for certain cash balances) are denominated in RMB, whereas our reporting currency is U.S. dollars. As a result, we are exposed to foreign exchange risk as our revenues and results of operations may be affected by fluctuations in the exchange rate between U.S. dollars and RMB. For details, see “Item 11. Quantitative and Qualitative Disclosures about Market Risk—Foreign Exchange Risk.”

Inflation

Inflation does not materially affect our business or the results of our operations.

B. Liquidity and Capital Resources

To date, we have financed our operations primarily through cash flows from operations, augmented by bank borrowings and equity contributions by our shareholders. As of December 31, 2018, we had $338.9 million in cash on hand and demand deposits, $537.5 million in time deposits, and $76.0 million in short term investments.

We believe that our current working capital is sufficient to meet our anticipated cash needs. We may, however, need additional cash resources in the future if we experience changes in business conditions or other developments, or if we find and wish to pursue opportunities for investment, acquisition, capital expenditure or similar actions. If we determine that our cash requirements exceed the amount of cash and cash equivalents we have on hand, we may seek to issue debt or equity securities or obtain credit facilities.

The following table sets forth a summary of our cash flows for the periods indicated:

Cash Flow

	For the Years Ended December 31,		
	2018	2017	2016
	USD	USD	USD
Net cash provided by operating activities	103.9	102.2	123.3
Net cash used in investing activities	(558.9)	(60.9)	(52.5)
Net cash (used in) provided by financing activities	571.3	(18.3)	(22.1)
Effect of foreign exchange rate change on cash and cash equivalents	3.3	12.5	(9.8)
Net increase in cash and cash equivalents	119.6	35.5	38.9
Cash and cash equivalents at beginning of the year	219.3	183.8	144.9
Cash and cash equivalents at end of the year	338.9	219.3	183.8

Operating activities

Cash inflows from operating activities totaled $103.9 million in 2018, $102.2 million in 2017, and $123.3 million in 2016. Cash inflows from operating activities in 2018 included a $21.8 million contribution from TianXinFu. Excluding TianXinFu, cash inflows decreased by $20.1 million in 2018 as compared to 2017 and decreased by $21.1 million in 2017 as compared to 2016. Such decreases in cash inflows from operations in 2018 excluding TianXinFu were mainly caused by the increase in accounts receivable and decrease in income tax payable. The decreases in cash inflows from operations in 2017 were mainly due to the increase in accounts receivable and inventories, which was partially offset by an increase in other payables and accrued liabilities during 2017.

Accounts receivable

Our average collection speed of accounts receivable continued to slow down in 2018 as compared to 2017. The accounts receivable turnover days for plasma products were 95 days, 58 days, and 41 days for 2018, 2017, and 2016, respectively. The increased turnover days reflected the longer credit terms to hospitals as a result of the nationwide implementation of healthcare reform measures and the intensified competition in the distribution channel.

Income tax payable

Excluding TianXinFu, income tax payable increased by $43.1 million in 2017 while decreased by $12.6 million in 2018. The increase in 2017 was mainly because of a repatriation tax charge of $40.3 million. In the first half of 2018, we made the first batch of tax payment of approximately $3.3 million. Based on new regulations and rules issued by the U.S. Department of the Treasury in August 2018, the management reassessed the amount and an amount of $7.5 million was reversed in the third quarter of 2018.

Inventories

Excluding TianXinFu, the increases in inventory for 2018, 2017 and 2016 were $42.5 million, $42.1 million and $40.1 million, respectively. The increase of inventories reflected a slow-down of production and sales in reaction to the weaker market demand due to more aggressive-than-expected implementation of certain government healthcare reform policies.

Investing activities

Cash outflows from investing activities for 2018 was $558.9 million, as compared to $60.9 million and $52.5 million for 2017 and 2016, respectively. In 2018, we paid $36.6 million for the acquisition of property, plant and equipment, intangible assets and land use rights, and we also prepaid $10.8 million for investments in equity securities, and purchased time deposit and short term investments in the amount of $2,726.8 million. This was partly offset by $97.7 million in cash received upon acquisition of TianXinFu and $2,117.6 million from the maturity of time deposits and short term investments.

In 2017, we paid $38.3 million for the acquisition of property, plant and equipment, intangible assets and land use rights and we also purchased time deposit in the amount of $22.7 million.

In 2016, we paid $51.0 million for the acquisition of property, plant and equipment, intangible assets and land use rights and provided loans of $12.3 million to Xinjiang Deyuan, which was partially offset by a $10.3 million refund of deposits on land use rights from the local government.

Financing activities

Cash inflows from financing activities for 2018 totaled $571.3 million, as compared to cash outflows from financing activities of $18.3 million for 2017 and $22.1 million for 2016.

Cash inflows from financing activities in 2018 mainly included proceeds of $590.3 million from the issuance and sale of an aggregate of 5,850,000 ordinary shares of us to certain investors, and $1.1 million from stock options exercised, partially offset by a dividend of $10.1 million paid by Shandong Taibang to its noncontrolling interest shareholders, and a prepayment of $10.0 million to an investment bank for potential share repurchases.

Cash outflows from financing activities in 2017 mainly consisted of the dividends payment of $18.8 million made by our subsidiary to noncontrolling interest shareholder, partially offset by proceeds of $0.9 million received from stock options exercised .

Cash outflows from financing activities in 2016 mainly consisted of payment of $58.1 million to the former minority shareholders of Guizhou Taibang in connection with their capital withdrawal from Guizhou Taibang and a dividend payment of $7.9 million by our subsidiary to noncontrolling interest shareholder, partially offset by the maturity of a $37.8 million time deposit as a security for a bank loan that was fully repaid in June 2015 and proceeds of $3.6 million from stock option exercised.

Management believes that our Company has sufficient cash on hand and will continue to have positive cash inflow for its operations from the sale of its products in the PRC market.

C. Research and Development, Patents and Licenses, etc.

Our research and development efforts consist of in-house development and partnership with leading international players to expand our product line to include plasma products that have higher margins and are technologically more advanced. We also seek to continue to improve the yield for our products. For further details of our pipeline products, see “Item 4.B. Information on the Company—Business Overview—Business—Our Research and Development Efforts.”

D. Trend Information

Other than as disclosed elsewhere in this annual report, we are not aware of any trends, uncertainties, demands, commitments or events for the period from January 1, 2018 to December 31, 2018 that are reasonably likely to have a material effect on our net revenues, income, profitability, liquidity or capital resources, or that would cause the disclosed financial information to be not necessarily indicative of future operating results or financial conditions.

E. Off-Balance Sheet Arrangements

We do not have any off-balance sheet arrangements that have or are reasonably likely to have a current or future effect on our financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources that are material to our investors.

F. Tabular Disclosure of Contractual Obligations

The following table sets forth our material contractual obligations as of December 31, 2018:

	Payments due by period				
Contractual Obligations	Total	**Less than one year**	One to three years	Three to five years	**More than five years**
	(U.S. dollars in millions)				
Operating lease commitment	2.1	0.8	1.1	-	0.2
Purchase commitment	58.2	14.0	44.2	-	-
Capital commitment	10.2	9.2	1.0	-	-
Total	70.5	24.0	46.3	-	0.2

G. Safe Harbor

Please see “Special Note Regarding Forward Looking Statements” above.

ITEM 6. DIRECTORS, SENIOR MANAGEMENT AND EMPLOYEES

A. Directors and Senior Management

Set forth below are the names of our current directors, officers and significant employees, their ages, all positions and offices that they hold with us, the period during which they have served as such, and their business experience during at least the last five years.

NAME	AGE	POSITION
Joseph Chow[(1)]	55	Chairman of the Board
Bing Li[(1)]	50	Director, Chief Executive Officer (the "CEO")
David Hui Li[(1)]	50	Director
Sean Shao[(1)]	62	Director
Yungang Lu[(1)]	55	Director
Yue'e Zhang[(1)]	56	Director
Qi Ning[(1)]	55	Director
Ming Yang	47	Chief Financial Officer (the "CFO")
Huaming He	52	Chief Business Officer (the "CBO")

(1) Our classified Board consists of three classes of directors. Class I directors currently consist of Mr. Joseph Chow and Ms. Yue'e Zhang, with term expiring in 2019. Class II directors currently consist of Mr. Sean Shao, Mr. David Hui Li and Mr. Qi Ning, with term expiring in 2020. Class III directors currently consist of Dr. Yungang Lu and Dr. Bing Li, with term expiring in 2021.

Mr. Joseph Chow. Mr. Chow has been a member of our Board since November 3, 2014 and our Chairman since February 3, 2019. Mr. Chow has over 20 years of experience in corporate finance, financial advisory and management and has held senior executive and managerial positions in various public and private companies. Mr. Chow is a managing director of Centurium Capital. Previously Mr. Chow was a managing director of Moelis and Company and a managing director at Goldman Sachs (Asia) LLP. Prior to that, he served as an independent financial consultant, as chief financial officer of Harbor Networks Limited, and as chief financial officer of China Netcom (Holdings) Company Limited. Prior to that, Mr. Chow served as the director of strategic planning of Bombardier Capital, Inc., as vice president of international operations of Citigroup and as the corporate auditor of GE Capital. Mr. Chow is currently an independent non-executive director for China ZhongDi Dairy Holdings Company Limited, a company listed on the Stock Exchange of Hong Kong. Mr. Chow obtained a Bachelor of Arts degree in political science from Nanjing Institute of International Relations and a Master of Business Administration degree from the University of Maryland at College Park. Mr. Chow is a Class I director.

Dr. Bing Li. Dr. Li has been a member of our Board since July 25, 2018 and our chief executive officer since August 13, 2018. He previously served on our Board from February 2011 to May 2014. Dr. Li served as a managing director of Fosun Group, a Chinese international conglomerate and investment company, from March 2016 to December 2017 and a vice president of Shanghai Fosun Pharmaceutical (Group) Co., Ltd., a Chinese pharmaceutical products manufacturer, from May 2014 to February 2016. Prior to that, Dr. Li served as an executive director of Warburg

Pincus Asia LLC (“Warburg Pincus”), an American private equity firm, from June 2010 to May 2014 and as a general manager of GlaxoSmithKline, a British pharmaceutical company, from August 2006 to June 2010. From 1999 to 2006, Dr. Li held multiple roles in Eli Lilly and Company, a global pharmaceutical company, including manager, strategic sourcing consultant, associate consultant and business development associate. Dr. Li received a B.S. in biophysics from Fudan University, a Ph.D. in Cell and Molecular Biology from University of Rochester, and a MBA and MEM from Northwestern University. Dr. Li is a Class III director.

Mr. David Hui Li. Mr. Li has been a member of our Board since November 4, 2013 and served as our Chairman from July 2018 to January 2019. Mr. Li is also the founder and chief executive officer of Centurium Capital. Mr. Li was an executive director and a managing director at Warburg Pincus from February 2002 to January 2016. Prior to joining Warburg Pincus, Mr. Li worked in the investment banking division of Goldman Sachs from 2001 to 2002 and Morgan Stanley from 1994 to 2001. Mr. Li received a B.S. in economics from Renmin University of China and an M.B.A. from Yale University School of Management. Mr. Li is a Class II director.

Mr. Sean Shao. Mr. Shao has been a member of our Board since July 24, 2008. In addition to his roles with us, Mr. Shao currently serves as independent director and chairman of the audit committee of: 21Vianet Group, Inc., a carrier-neutral internet data center services provider listed on Nasdaq since August 2015; Jumei International Holding Ltd., an e-commerce company listed on NYSE since May 2014; LightInTheBox Holdings Co. Ltd., an e-commerce company listed on NYSE since June 2013; and UTStarcom Holdings Corp., a provider of broadband equipment and solutions listed on Nasdaq since October 2012. He served as the chief financial officer and a board member of Trina Solar Limited from 2006 to 2008 and from 2015 to 2017, respectively. In addition, Mr. Shao served from 2004 to 2006 as the chief financial officer of ChinaEdu Corporation, an educational service provider, and of Watchdata Technologies Ltd., a Chinese security software company. Prior to that, Mr. Shao worked at Deloitte Touche Tohmatsu CPA Ltd. for approximately a decade. Mr. Shao received his master's degree in health care administration from the University of California at Los Angeles in 1988 and his bachelor's degree in art from East China Normal University in 1982. Mr. Shao is a member of the American Institute of Certified Public Accountants. Mr. Shao is a Class II director.

Dr. Yungang Lu. Dr. Lu has been a member of our Board since March 19, 2012. Dr. Lu is a Managing Partner of Fort Hill Capital Limited ("Fort Hill"), an investment partnership focusing on the global equity market. Prior to Fort Hill, Dr. Lu has served as a Managing Director of Seres Asset Management Limited, a Hong Kong-based Asian investment specialist, from August 2009 to October 2016, and a Managing Director of APAC Capital Advisors Limited, an investment manager focusing on Greater China equities, from 2004 to July 2009. Dr. Lu also serves as a director of two listed companies - China Techfaith Wireless Communication Technology Ltd., a handheld device company in China, and Global Cord Blood Corporation, a provider of cord blood storage services primarily in China. Dr. Lu was a research analyst with Credit Suisse First Boston (Hong Kong), a financial services company, from 1998 to 2004, where his last position was the head of China Research, and was a research analyst with JP Morgan Securities Asia, a financial services company, in Hong Kong from 1997 to 1998. Dr. Lu received a B.S. in Biology from Peking University, an M.S. in Biochemistry from Brigham Young University and a Ph.D. in Finance from the University of California, Los Angeles. Dr. Lu is a Class III director.

Ms. Yue'e Zhang. Ms. Yue'e Zhang was appointed as a director on our Board on January 1, 2018, pursuant to the investor rights agreement dated as of January 1, 2018 by and between the Company and PW Medtech Group Limited, a major shareholder of the Company. Ms. Zhang has worked in the medical device industry for over 20 years and has accumulated considerable experience in product design, research and development, and management and investment. She currently serves as the chairman of the board and an executive director of PW Medtech Group Limited, a company listed on the Hong Kong Stock Exchange. She is also a founder and shareholder of Lepu Medical Technology (Beijing) Co., Ltd., a company listed on the Shenzhen Stock Exchange. Ms. Zhang obtained a bachelor's degree in material science and engineering from Xi'an Jiaotong University, and two master degrees in material science

and management from Xi'an University of Technology and Florida International University, respectively. Ms. Zhang is a Class I director.

Mr. Qi Ning. Mr. Ning has been a member of our Board since July 25, 2018. Mr. Ning has been an executive director and chief executive officer of Sinnet Cloud Data Co., Ltd., a company specializing in marketing and promoting AWS cloud products and related services in China, since May 2018, a general partner of Tianjin Aman Enterprise Management GP, a consulting and management company, since May 2018 and a managing partner of Intermarket Advisory LLP, a company offering advisory and consulting services to financial institutions in TMT sectors, since January 2018. From August 2012 to December 2017, Mr. Ning held multiple roles in 21Vianet Group, a Chinese carrier neutral cyber infrastructure services provider, including senior advisor, executive vice president, chief operating officer, senior vice president and general manager of Blue Cloud Tech Co., Ltd., a wholly owned subsidiary of 21Vianet Group. Prior to that, Mr. Ning served as an executive director and chief executive officer of China Netcom Broadband Corporation Ltd., a joint venture telecom services provider between China Netcom Group Corporation and PCCW, the dominant carriers from North China and Hong Kong, and a managing director of China Broadband Capital, a TMT-focused private equity fund; from June 2004 to August 2008, as an executive director of China Netcom Broadband Corporation Ltd., a Chinese residential broadband services provider; from 1999 to June 2004 as acting general manager of Zhejiang Provincial Branch of China Netcom Group Corporation, vice president of China Netcom Broadband Corporation Ltd., a subsidiary of China Netcom Holding Corp., Ltd., assistant to COO and general manager of Carrier & International Services BU of China Netcom Holding Corp., Ltd., a Chinese telecommunication services provider. Mr. Ning received a Bachelor degree of Engineering in Nuclear Physics and a Master degree of Engineering in Industrial and Innovation Economics from Tsinghua University. Mr. Ning is a Class II director.

Mr. Ming Yang. Mr. Yang has been our CFO since August 7, 2012. Mr. Yang served as our interim CFO between May 31 and August 6, 2012 and our Vice President-Finance & Compliance and Treasurer between March 30, 2012 and August 6, 2012. Mr. Yang also serves as an independent director for Kunming Jida Pharmaceutical. Mr. Yang has six years of financial management experience in corporations and 11 years of audit experience in accounting firms. Mr. Yang has extensive experience in dealing with the PRC tax regulations, PRC GAAP, IFRS and internal control matters. He was an audit senior manager at KPMG, where he provided audit services for initial public offerings, right issues and merger and acquisition transactions. He also worked on the annual audits of various public companies listed in Hong Kong and mainland China. His audit clients ranged from state-owned enterprises and Chinese listed companies to multinational companies, including Angang Steel, Shenhua Energy, BOE Technology and BHP Billiton. Mr. Yang is a certified public accountant in China.

Dr. Huaming He. Dr. Huaming (Homer) He has been our CBO (Chief Business Officer) since December 3, 2018, in charge of the commercial portion of the growing market in China. Dr. He has more than 30 years' professional experiences in the healthcare industry, especially in the Greater China area. From 2015 to 2018, he worked as the Vice President & General Manager of Danaher Dental Platform which is one of the US Fortune Top 500 corporations, and took responsibilities on its Ormco/ABT/Nobel Biocare businesses in the Greater China area. Before that, he served on several senior commercial positions in multinational corporations such as MSD, a U.S.-headquartered company ranking among the top 10 in the global pharmaceutical market, and GlaxoSmithKline plc (GSK), a leading British pharmaceutical company. Previously Dr. He also worked in China state-owned enterprises such as Shanghai Jing'An Pharmaceutical Co., Ltd. which is invested by Shanghai Leiyunshang Pharmaceutical West Area Co., Ltd., in the areas of pharmaceuticals, vaccines, and medical device consumables. Dr. He possesses a Bachelor Degree of Clinical Medicine from Tongji University as well as an EMBA certificate from a joint program of Shanghai Jiaotong

University and Rotman Business School, University of Toronto. He is a Certificated Clinical Doctor in China, with 4 years' clinical medical experience as a surgeon in hospitals.

There are no agreements or understandings for any of our executive officers or directors to resign at the request of another person and no officer or director is acting on behalf of nor will any of them act at the direction of any other person. To the best of our knowledge and belief, except as disclosed in "Item 7.B. Major Shareholders and Related Party Transactions—Related Party Transactions," there are no arrangements or understandings with any of our directors, executive officers, principal shareholders, customers, suppliers, or any other person, pursuant to which any of our directors or executive officers were selected.

Directors and executive officers are elected or appointed until their successors are duly elected or appointed and qualified.

Family Relationships

There are no family relationships among our directors or executive officers.

B. Compensation

In 2018, we paid an aggregate of approximately US$2.5 million in cash to our executive officers, and approximately US$0.4 million in cash to our non-executive directors. We also granted restricted shares to our executive officers and directors, as set forth in "Item 6.B. Directors, Senior Management and Employees—Compensation—Employees' Share Incentive Plans".

Our PRC subsidiaries are required by law to make contributions equal to certain percentages of each employee's salary for his or her pension insurance, medical insurance, housing fund, unemployment and other statutory benefits. Except for the above statutory contributions, we have not set aside or accrued any amount to provide pension, retirement or other similar benefits to our executive officers and directors.

Employment Agreements

Each of Bing Li, Ming Yang, and Huaming He has entered into an employment agreement with the Company. The employment agreements set forth their respective base salary levels, subject to annual adjustment by the Compensation Committee or the Board, as the case may be. The employment agreements also provide that each of these executive officers is eligible to receive a discretionary bonus, which is linked to annual corporate and individual

performance established by the Compensation Committee.

Our employment agreement with each of Bing Li and Ming Yang contains severance and change of control arrangements, which provide that if such executive's employment is terminated by the Company without cause, he will be entitled to receive a cash severance payment equal to 12 months of his then current base salary, payable in 12 equal monthly installments, and that if his employment is terminated by the Company upon certain change of control events, such as certain mergers or consolidations of the Company or sale or disposition of all or substantially all of the Company's assets, he will be entitled to receive a cash severance payment equal to 18 months of his then current base salary, payable in 18 equal monthly installments. These employment agreements also provide that the Company will indemnify these executives against expenses and liabilities such executives reasonably incur in connection with any suit or proceeding in which they may be involved by reason of their service as executives of the Company.

We have also entered into a standard form of director agreement with each of our directors. Under these agreements, we pay cash compensations to our directors and reimburse them for pre-approved reasonable business-related expenses incurred in good faith in the performance of the directors' duties for our Company. In addition, we have entered into an indemnification agreement with each of our directors, pursuant to which we have agreed to indemnify our directors against certain liabilities and expenses incurred by them in connection with claims made by reason of their being a director of our Company.

In addition to his director agreement and indemnification agreement, Mr. David Hui Li entered into a consulting agreement with us on July 1, 2016, which was terminated on July 11, 2018 by mutual agreement between Mr. David Hui Li and us. Under this agreement, Mr. David Hui Li had advised the Company and the management on short-term and long-term strategies, potential acquisition transactions, potential strategic partnerships and alliances, and potential financial and capital market activities. As a compensation to Mr. David Hui Li, the Company had awarded him certain restricted shares.

Employees' Share Incentive Plan

Effective May 9, 2008, the Board adopted the 2008 Equity Incentive Plan (the "2008 Plan") and reserved a total of five million ordinary shares of the Company to be issued pursuant to the 2008 Plan. The 2008 Plan provides for grants of share options, share appreciation rights, performance units, restricted shares, restricted share units and performance shares. These equity awards were granted at the discretion of the Compensation Committee to align the executive officers' interests with those of the shareholders and provide the executive officers with a significant incentive to manage the Company from the perspective of an owner with an equity stake in the business. The 2008 Plan expired on May 9, 2018 and substantially all ordinary shares reserved under the 2008 Plan had been granted.

As of December 31, 2018, 605,391 restricted shares and options to purchase 107,304 ordinary shares of the Company were outstanding under the 2008 Plan.

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The following table sets forth the outstanding options granted under our 2008 Plan as of December 31, 2018 for each of our executive officers and directors.

Name	Number of securities underlying unexercised options exercisable (#)	Option exercise price ($)	Option expiration date
David Hui Li	—	—	—
Bing Li	—	—	—
Sean Shao	—	—	—
Yungang Lu	30,000	9.16;9.85	From March 19, 2022 to August 31, 2022
Joseph Chow	—	—	—
Yue’e Zhang	—	—	—
Qi Ning	—	—	—
Ming Yang	—	—	—
Huaming He	—	—	—
Total Directors and Executive Officers	33,750		

The following table sets forth the outstanding restricted share awards as of December 31, 2018 for each of our executive officers and directors.

Name	Number of shares that have not vested (#)	Date of grant
David Hui Li	6,000	From August 18, 2017 to April 3, 2018
Bing Li	—	—
Sean Shao	10,500	From August 18, 2017 to April 3, 2018
Yungang Lu	9,000	From August 18, 2017 to April 3, 2018
Joseph Chow	6,000	From August 18, 2017 to April 3, 2018
Yue’e Zhang	4,000	April 3, 2018
Qi Ning	—	—

Ming Yang	87,000	From August 3, 2015 to April 3, 2018
Huaming He	—	—
Total Directors and Executive Officers	122,500	

The following paragraphs summarize the principal terms of our 2008 Plan.

Plan Administration. Our 2008 Plan is administered by the Board or the Compensation Committee of the Board. Our board of directors or the Compensation Committee, as applicable, has the authority, among other things, to determine the participants to receive awards under the 2008 Plan, the number and type of awards to be granted to each participant, and the terms and conditions of each award, and to construe and interpret the terms of the 2008 Plan and the awards.

Award Agreements. Awards granted under the 2008 Plan are evidenced by an award agreement that sets forth the terms and conditions for each award granted, which may include, among other things, the type of the award, the vesting schedule, the exercise price, restrictions on transferability and the expiration date.

Eligibility. The 2008 Plan allows grant of awards to employees, directors and consultants of the Company or any of our subsidiaries.

Term of Awards. The term of each equity award is stated in the relevant award agreement, provided that the term will not exceed ten years from the date of the grant.

Vesting Schedule. In general, the plan administrator determines the vesting schedule for each award, which is specified in the relevant award agreement.

Change in Control. In the event of a merger or change in control of the Company, the surviving or successor entity may either assume the Company's rights and obligations with respect to outstanding awards under the 2008 Plan or substitute outstanding awards for substantially equivalent awards that are subject to terms and conditions no less favorable to the participants than those in effect prior to the merger or change in control. In the event that the successor entity does not assume or substitute outstanding awards, the awards will be fully vested and all restrictions will lapse.

Transfer Restrictions. Awards granted under the 2008 Plan may not be transferred in any manner by the recipient other than by will or the laws of descent and distribution.

Termination of the Plan. The 2008 Plan expired on May 9, 2018. Termination of the 2008 Plan does not affect the plan administrator's ability to exercise its powers with respect to awards granted under the 2008 Plan prior to the termination date.

C. Board Practices

We are governed by a Board that currently consists of seven members divided into three classes. Class I directors currently consist of Mr. Joseph Chow and Ms. Yue’e Zhang, with term expiring in 2019. Class II directors currently consist of Mr. Sean Shao, Mr. David Hui Li and Mr. Qi Ning, with term expiring in 2020. Class III directors currently consist of Dr. Yungang Lu and Dr. Bing Li, with term expiring in 2021. Mr. Qi Ning and Dr. Bing Li were appointed to the Board on July 25, 2018. All other directors have served on the Board since the beginning of the current term of the respective class.

Dr. Bing Li's employment agreement with us contains severance arrangements. See "Item 6.B. Directors, Senior Management and Employees—Compensation—Employment Agreements." None of the other directors on our Board has a service contract with us that provides for benefits upon termination of service.

Our Board currently has three standing committees: the Audit Committee, Compensation Committee and Governance and Nominating Committee, which, pursuant to delegated authority, perform various duties on behalf of and report to the Board. The Board has adopted a written charter for each of the committees which are available on our website at http://www.chinabiologic.com.

Audit Committee

Our Audit Committee is currently composed of three members: Mr. Sean Shao, Dr. Yungang Lu and Mr. Qi Ning. Mr. Shao serves as Chair of the Audit Committee. Our Board determined that each member of the Audit Committee meets the independence criteria prescribed by applicable rules and regulations of the SEC for audit committee membership and is an "independent" director within the meaning of the Nasdaq Marketplace Rules. Each Audit Committee member also meets Nasdaq's financial literacy requirements.

Our Audit Committee oversees our accounting and financial reporting processes and the audits of our financial statements. It is responsible for, among other things:

- selecting our independent auditors and pre-approving all auditing and non-auditing services permitted to be performed by our independent auditors;
- reviewing with our independent auditors any audit problems or difficulties and management's response;
- reviewing and approving all proposed related-party transactions;
- discussing the annual audited financial statements with management and our independent auditors;
- reviewing the adequacy and effectiveness of our internal control over financial reporting;

- annually reviewing and reassessing the adequacy of our audit committee charter;

- such other matters that are specifically delegated to our Audit Committee by our Board from time to time;

- meeting separately and periodically with management and our internal and independent auditors; and

- reporting regularly to the full Board.

Our Board has determined that Mr. Shao is the "audit committee financial expert" as such term is defined in Item 407(d) of Regulation S-K promulgated by the SEC and also meets Nasdaq's financial sophistication requirements.

Compensation Committee

Our Compensation Committee is currently composed of three members: Mr. Qi Ning, Mr. Sean Shao, and Dr. Yungang Lu, each of whom is "independent" within the meaning of the Nasdaq Marketplace Rules. Mr. Ning serves as Chair of the Compensation Committee.

Our Compensation Committee assists the Board in reviewing and approving the compensation structure of executive officers, including all forms of compensation to be provided to our executive officers. Our CEO may not be present at any committee meeting during which his compensation is deliberated.

The Compensation Committee is responsible for, among other things:

- approving and overseeing the compensation package for our executive officers;

- reviewing and approving corporate goals and objectives relevant to the compensation of our CEO, evaluating the performance of our CEO in light of those goals and objectives, and setting the compensation level of our CEO based on this evaluation; and

- reviewing periodically and making recommendations to the Board regarding any long-term incentive compensation or equity plans, programs or similar arrangements, annual bonuses, employee pension and welfare benefit plans.

Governance and Nominating Committee

Our Governance and Nominating Committee is currently composed of three members: Dr. Yungang Lu, Mr. Joseph Chow and Mr. Qi Ning, each of whom is “independent” within the meaning of the Nasdaq Marketplace Rules. Dr. Lu serves as Chair of the Governance and Nominating Committee.

The Governance and Nominating Committee assists the Board in identifying individuals qualified to become our directors and in determining the composition of the Board and its committees.

The Governance and Nominating Committee is responsible for, among other things:

- identifying and recommending to the Board nominees for election or re-election to the Board, or for appointment to fill any vacancy;
- reviewing annually with the Board the current composition of the Board in light of the characteristics of independence, age, skills, experience and availability of service to us;
- identifying and recommending to the Board directors to serve as members of the Board's committees; and
- monitoring compliance with our Corporate Governance Guidelines.

D. Employees

See "Item 4.B. Information on the Company—Business Overview—Business—Our Employees."

E. Share Ownership

The following table sets forth information regarding beneficial ownership of our ordinary shares as of March 1, 2019 (i) by each person who is known by us to beneficially own more than 5% of our ordinary shares; (ii) by each of our executive officers and directors; and (iii) by all of our executive officers and directors as a group. Unless otherwise specified, the address of each of the persons set forth below is in care of the Company, 18th Floor, Jialong International Building, 19 Chaoyang Park Road, Chaoyang District, Beijing 100125, People's Republic of China.

Name and Address of Beneficial Owner	**Office, If Any**	**Title of Class**	**Amount and Nature of Beneficial Ownership** [1]	**Percent of Class** [2]
	Officers and Directors			
Joseph Chow [3]	Director, Chairman of the Board	Ordinary Share	12,509	*
Bing Li [4]	Director, CEO	Ordinary Share	14,000	*
David Hui Li [5]	Director	Ordinary Share	4,882,446	12.4 %
Sean Shao [6]	Director	Ordinary Share	12,000	*
Yungang Lu [7]	Director	Ordinary Share	82,000	*

Yue'e Zhang[8]	Director	Ordinary Share	2,000	*	
Qi Ning	Director	Ordinary Share	—	—	
Ming Yang [9]	CFO	Ordinary Share	18,108	*	
Huaming He	CBO	Ordinary Share	—	—	
All officers and directors as a group		Ordinary Share	5,023,063	12.8	%
	5% Security Holders				
PW Medtech Group Limited [10]		Ordinary Share	6,321,000	16.1	%
Liu Yufeng [11]		Ordinary Share	2,204,133	5.6	%
Centurium Holdings (BVI) Ltd. [12]		Ordinary Share	4,858,177	12.3	%
Capital Research Global Investors [13]		Ordinary Share	2,087,348	5.3	%
Parfield International Ltd. [14]		Ordinary Share	2,682,742	6.8	%
Marc Chan [14]		Ordinary Share	3,180,696	8.1	%
CITIC Capital Holdings Limited [15]		Ordinary Share	3,450,863	8.8	%
Hillhouse Capital Advisors, Ltd. [16]		Ordinary Share	2,751,200	7.0	%

* Less than 1%

(1) Beneficial ownership is determined in accordance with the rules of the SEC and generally includes voting or investment power with respect to securities. Except as indicated in the footnotes below, each of the beneficial owners listed above has direct ownership of and sole voting power and investment power with respect to our ordinary shares.

(2) As of March 1, 2019, a total of 39,361,616 ordinary shares of the Company were outstanding. For each beneficial owner above, any securities that are exercisable or convertible within 60 days have been included for the purpose of computing the number of shares beneficially owned and the percentage ownership of such beneficial owner pursuant to SEC Rule 13d-3(d)(1). We did not deem such shares to be outstanding, however, for purposes of calculating the percentage ownership of any other person.

(3) Represents 10,509 ordinary shares of the Company and 2,000 ordinary shares to be issued within 60 days after March 1, 2019 upon vesting of restricted shares of the Company granted under the 2008 Plan.

(4) Represents 14,000 ordinary shares of the Company.

(5) Represents 22,269 ordinary shares of the Company directly owned by Mr. David Hui Li, 2,000 ordinary shares to be issued within 60 days after March 1, 2019 upon vesting of restricted shares of the Company granted under the 2008 Plan, and 4,858,177 ordinary shares of the Company owned by Beachhead Holdings Limited ("Beachhead") and deemed to be beneficially owned by Mr. David Hui Li, as reported in a Schedule 13D/A filed with the SEC by Beachhead, Centurium Capital Partners 2018, L.P. ("CCP 2018"), Centurium Capital Partners 2018 GP Ltd. ("Centurium GP"), Centurium Capital 2018 Co-invest, L.P. ("CCCI 2018"), Centurium Capital 2018 SLP-B Ltd. ("Centurium SLP-B"), Centurium Holdings Ltd. ("Centurium GP Holdco"), Centurium Holdings (BVI) Ltd. ("Centurium TopCo") and Mr. David Hui Li on February 4, 2019. CCP 2018 and CCCI 2018 are the shareholders of Beachhead. Centurium GP is the sole general partner of CCP 2018. Centurium SLP-B is the sole general partner of CCCI 2018. Centurium GP Holdco is the sole shareholder of Centurium GP and Centurium SLP-B. Centurium TopCo is the sole shareholder of Centurium GP Holdco. Mr. David Hui Li is the sole shareholder and director of Centurium TopCo.

(6) Represents 8,500 ordinary shares of the Company and 3,500 ordinary shares to be issued within 60 days after March 1, 2019 upon vesting of restricted shares of the Company granted under the 2008 Plan.

(7) Represents 49,000 ordinary shares of the Company, 3,000 ordinary shares to be issued within 60 days after March 1, 2019 upon vesting of restricted shares of the Company granted under the 2008 Plan, 20,000 ordinary shares of the Company underlying a ten-year nonstatutory share option granted under the 2008 Plan, fully vested and exercisable at $9.16 per share, and 10,000 ordinary shares of the Company underlying a ten-year nonstatutory share option granted under the 2008 Plan, fully vested and exercisable at $9.85 per share.

(8) Represents 2,000 ordinary shares to be issued within 60 days after March 1, 2019 upon vesting of restricted shares of the Company granted under the 2008 Plan.

(9) Represents 10,608 ordinary shares of the Company and 7,500 ordinary shares to be issued within 60 days after March 1, 2019 upon vesting of restricted shares of the Company granted under the 2008 Plan.

(10) Represents 6,321,000 ordinary shares of the Company owned by PW Medtech Group Limited as reported in a Schedule 13D/A filed with the SEC by PW Medtech Group Limited, Cross Mark Limited and Ms. Liu Yufeng on September 24, 2018. The registered address of PW Medtech Group Limited is the Grand Pavilion Commercial Centre, Oleander Way, 802 West Bay Road, P.O. Box 32052, Grand Cayman KY1-1208, Cayman Islands.

(11) Represents 2,204,133 ordinary shares of the Company owned by PW Medtech Group Limited and deemed to be beneficially owned by Cross Mark Limited and by Ms. Liu Yufeng as reported in a Schedule 13D/A filed with the SEC by PW Medtech Group Limited, Cross Mark Limited and Ms. Liu Yufeng on September 24, 2018. PW Medtech Group Limited is owned as to approximately 34.9% by Cross Mark, which is its single largest shareholder and deemed as its controlling shareholder under the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited, and Cross Mark Limited is wholly-owned by Ms. Liu Yufeng. The registered address of Cross Mark Limited is Portcullis Chambers, 4th Floor, Ellen Skelton Building, 3076 Sir Francis Drake Highway, Road Town, Tortola, British Virgin Islands VG1110, and the business address of Ms. Liu Yufeng is 15/F, BOC Group Life Assurance Tower, No. 136 Des Voeux Road Central, Hong Kong. Ms. Liu Yufeng is the mother of Ms. Yue'e Zhang.

(12) Represents 4,858,177 ordinary shares of the Company owned by Beachhead as reported in a Schedule 13D/A filed with the SEC by Beachhead, CCP 2018, Centurium GP, CCCI 2018, Centurium SLP-B, Centurium GP Holdco, Centurium TopCo and Mr. David Hui Li on February 4, 2019. CCP 2018 and CCCI 2018 are the shareholders of Beachhead. Centurium GP is the sole general partner of CCP 2018. Centurium SLP-B is the sole general partner of CCCI 2018. Centurium GP Holdco is the sole shareholder of Centurium GP and Centurium SLP-B. Centurium TopCo is the sole shareholder of Centurium GP Holdco. Mr. David Hui Li is the sole shareholder and director of Centurium TopCo. The address of the principal business of each of Beachhead, CCP 2018, Centurium GP, CCCI 2018, Centurium SLP-B and Centurium GP Holdco is PO Box 309, Ugland House, Grand Cayman, KY1-1104, Cayman Islands. The address of the principal business of Centurium TopCo is Kingston Chambers, PO Box 173, Road Town, Tortola, British Virgin Islands. The address of principal business of Mr. David Hui Li is 22th Floor, Building A1, Central Park Plaza, No.10 Yard, Chaoyang Park South Road, Chaoyang District, Beijing 100026, China.

(13) Represents 2,087,348 ordinary shares of the Company deemed to be beneficially owned by Capital Research Global Investors as reported in a Schedule 13G/A filed with the SEC by Capital Research Global Investors on February 14, 2019. Capital Research Global Investors, a division of Capital Research and Management Company ("CRMC"), is deemed to be the beneficial owner of our ordinary shares as a result of CRMC acting as investment adviser to various investment companies registered under Section 8 of the Investment Company Act of 1940. The address of the business office of Capital Research Global Investors is 333 South Hope Street, Los Angeles, CA 90071.

(14) Represents 2,682,742 ordinary shares of the Company held by Parfield International Ltd. and 497,954 ordinary shares of the Company held by Amplewood Resources Ltd., as reported in a Schedule 13G/A filed by Parfield International Ltd. and Marc Chan on February 12, 2019. Marc Chan is the director and sole shareholder of

Parfield International Ltd. and Amplewood Resources Ltd. The address of the business office of each of Parfield International Ltd. and Marc Chan is Unit No. 21E, 21st Floor, United Centre, 95 Queensway Admiralty, Hong Kong.

(15) Represents 3,450,863 ordinary shares of the Company held by CITIC Capital China Partners IV, L.P. ("CCCP IV") and deemed to be beneficially owned by CITIC Capital Holdings Limited ("CCHL") as reported in a Schedule 13D/A filed with the SEC by CCCP IV, CCP IV GP Ltd. ("CCP IV GP"), CITIC Capital Partners Limited ("CCPL"), and CCHL on October 31, 2018. CCP IV GP is the sole general partner of CCCP IV. CCP IV GP is a wholly owned subsidiary of CCP Ltd. CCP Ltd. is a wholly owned subsidiary of CCPL. CCHL owns 51% of the issued and outstanding ordinary shares of CCPL. The registered address of each of CCCP IV, CCP IV GP and CCPL is Walkers Corporate Limited, Cayman Corporate Centre, 27 Hospital Road, George Town, Grand Cayman, KY1-9008, Cayman Islands. The address of CCHL's principal executive office is 28/F, CITIC Tower, 1 Tim Mei Avenue, Central, Hong Kong.

(16) Represents 2,751,200 ordinary shares of the Company as reported in a Schedule 13G/A filed with the SEC by Hillhouse Capital Advisors, Ltd. on February 14, 2019. The address of the principal executive office of Hillhouse Capital Advisors, Ltd. is Suite 2202, 22nd Floor, Two International Finance Centre, 8 Finance Street, Central, Hong Kong.

Except as disclosed in "Item 7.B. Major Shareholders and Related Party Transactions—Related Party Transactions," none of our shareholders has different voting rights from other shareholders. To our knowledge, as of March 1, 2019, approximately 77.2% of our ordinary shares were held of record by 432 holders in the United States.

There are no arrangements known to us, the operation of which may at a subsequent date result in a change in control of the Company.

ITEM 7. MAJOR SHAREHOLDERS AND RELATED PARTY TRANSACTIONS

A. Major Shareholders

Please refer to "Item 6.E. Directors, Senior Management and Employees—Share Ownership."

B. Related Party Transactions

Investor Rights Agreement with PW Medtech Group Limited

On January 1, 2018, we acquired 80% equity interest in TianXinFu, a medical device company primarily engaging in the manufacturing and sale of regenerative medical biomaterial products, from PWM, which was not a shareholder or

otherwise a related party of us before this transaction. In exchange for the acquisition of TianXinFu's equity, we issued 5,521,000 ordinary shares to PWM. PWM further acquired 800,000 ordinary shares of us on September 21, 2018 in a private placement (see "Item 7.B. Major Shareholders and Related Party Transactions—Related Party Transactions—Private Placement"). As of March 1, 2019, PWM held approximately 16.1% of our outstanding share capital.

In connection with our share issuance to PWM, we entered into an investor rights agreement with PWM (the "PWM Investor Rights Agreement") on January 1, 2018. Pursuant to the PWM Investor Rights Agreement, we granted certain shelf and piggyback registration rights to PWM. We also granted PWM the right to designate one director to our Board, subject to certain conditions. In addition, the PWM Investor Rights Agreement imposes on PWM certain transfer restrictions for a three-year lockup period and certain investment restrictions for so long as PWM has the right to designate any director to the Board. The PWM Investor Rights Agreement also requires PWM to, during the lockup period, vote all shares of the Company beneficially owned by PWM in the manner recommended by the Board at any of our shareholders meetings.

Private Placement

On August 24, 2018, we entered into (i) a share purchase agreement with Beachhead Holdings Limited ("Centurium") and Double Double Holdings Limited ("DD"), which are affiliated with two of our directors, Mr. David Hui Li and Mr. Joseph Chow, (ii) a share purchase agreement with PWM, our largest shareholder with a director representative, Ms. Yue'e Zhang, and (iii) share purchase agreements with two third party investors, for the issuance and sale of 3,050,000, 800,000 and 2,000,000, respectively, ordinary shares of the Company at a per share purchase price of $100.90, to raise aggregate gross proceeds of approximately $590 million. The transaction was approved by a special committee formed by our board of directors, consisting of two independent directors. On the same date, the Company issued 1,800,000 ordinary shares to Centurium and an aggregate of 2,000,000 ordinary shares to the two third party investors, pursuant to their respective share purchase agreements. On September 4, 2018, DD assigned its rights and obligations under the share purchase agreement to Centurium, and the Company issued 1,250,000 additional ordinary shares to Centurium thereafter. On September 21, 2018, the Company issued 800,000 ordinary shares to PWM.

In connection with the foregoing share issuances, we entered into investor rights agreements with each of Centurium and the two third party investors on August 24, 2018, which impose certain transfer restrictions on such investors, including a two-year lockup of the ordinary shares acquired in this private placement, transfer restrictions with respect to our competitors, and voting agreement in accordance with the recommendations of the board of directors at our shareholders' meetings. We also granted certain shelf and piggyback registration rights to Centurium and the two third party investors. In addition, we granted Centurium the right to designate one director to our board of directors, subject to certain conditions.

In connection with the issuance of the 800,000 ordinary shares to PWM, we waived certain transfer restrictions under the PWM Investor Rights Agreement so that PWM would be permitted to (i) pledge 3,162,854 ordinary shares to secure a margin loan from a third-party bank mainly for the purpose of payment of its subscription price, and (ii) pledge or sell up to 897,989 additional ordinary shares mainly for the purposes of payment of the interests, fees and expenses, and/or cure of any collateral shortfall, under the margin loan. If PWM proposes to sell any of our ordinary shares covered by the waiver, we have a right of first offer to purchase or designate another party to purchase all or a portion of such ordinary shares at the closing price of the ordinary shares on the last trading day prior to the date when PWM delivers a notice of the proposed sale.

Prepayment for Investment in Beijing Taijieweiye Technology Co., Ltd. ("TJWY Medical")

On November 28, 2018, we entered into a share transfer agreement with Smart Step Investments Limited ("Smart Step"), the then largest shareholder of TJWY Medical, pursuant to which we purchased approximately 11.55% of the equity interests in TJWY Medical from Smart Step for a cash consideration of US$10,812,893. Pursuant to the share transfer agreement, we have the right to request Smart Step to redeem full or part of the equity interests in TJWY transferred at the original purchase price plus 6% compound interest rate per annum. Such right can be exercised by us within 6 months from the third anniversary of the closing date of the transaction. The transaction was completed on January 23, 2019. TJWY Medical is a manufacturer of interventional products. The ultimate beneficial owner of Smart Step is the mother of Ms. Yue'e Zhang, one of our directors. The audit committee, which consists solely of independent directors who have no personal interest in the transaction, approved the transaction.

Equity Awards

See "Item 6.B. Directors, Senior Management and Employees—Compensation—Employees' Share Incentive Plan."

Employment Agreements

See "Item 6.B. Directors, Senior Management and Employees—Compensation—Employment Agreements."

C. Interests of Experts and Counsel

Not applicable.

ITEM 8. FINANCIAL INFORMATION

A. Consolidated Statements and Other Financial Information

The full text of our audited consolidated financial statements as of December 31, 2018, 2017 and 2016 begins on page F-1 of this report.

Legal Proceedings

PRC Lawsuit

-Dispute with an Individual over a Due-on-demand Loan of Guizhou Taibang

In June 2017, an individual brought a lawsuit against Guizhou Taibang and Guizhou Eakan Investing Corp. ("Guizhou Eakan"), an entity affiliated with one of Guizhou Taibang's former noncontrolling shareholders, requesting repayment of RMB14.56 million (approximately $2.1 million) and related fund possession cost amounting to approximately RMB37.1 million (approximately $5.4 million). The plaintiff alleged that he entered into an agreement with Guizhou Eakan in May 2007, according to which he provided RMB14.56 million for Guizhou Eakan to satisfy Guizhou Taibang's loan request.

On February 28, 2018, the trial was set in Shanghai Pudong New Area People's Court. In March 2018, the court dismissed the trial for lack of jurisdiction and then transferred the trial to Shanghai No.1 Intermediate People's Court ("No.1 Court"). In January 2019, the No.1 Court held the trial and as of reporting date the ruling is still pending.

We do not expect the plaintiff to prevail in this trial, but we cannot assure that the final outcome will be in favor of Guizhou Taibang. As of December 31, 2018, Guizhou Taibang has maintained RMB14.56 million (approximately $2.1 million) payable to Guizhou Eakan on its balance sheet.

- Dispute with an Individual over Capital Injection into Guizhou Taibang

In January 2019, another individual who claimed to be a strategic investor of Guizhou Taibang brought a lawsuit against Guizhou Taibang, requesting to register her alleged ownership interest in Guizhou Taibang with the local Administration for Market Regulation ("AMR", formerly known as the Administration of Industry and Commerce). The plaintiff alleged that she entered into an Equity Purchase Agreement with Guizhou Taibang in May 2007, according to which she paid RMB11.2 million (approximately $1.6 million) to Guizhou Taibang in exchange for approximately 4.71% of Guizhou Taibang's equity interests.

The plaintiff and Guizhou Taibang are scheduled to exchange evidence on March 20, 2019. We do not expect the plaintiff to prevail in this trial, but we cannot assure that the final outcome will be in favor of Guizhou Taibang.

Cayman Lawsuit

On August 27, 2018, our former Chairman and CEO Mr. David (Xiaoying) Gao commenced a proceeding against us in the Grand Court of the Cayman Islands (the "Court"), principally seeking (a) a declaration that the private placement that was announced by us on August 24, 2018 was invalid and void, (b) an order requiring us to reverse and/or rescind any transactions carried out pursuant to the private placement, and (c) an injunction to prevent further shares from being issued by us to the entities participating in the private placement. The private placement was completed on September 21, 2018. On October 5, 2018, we made an application to the Court for dismissal of Mr. Gao's lawsuit on the ground, among others, that Mr. Gao lacked standing to pursue the claims. On December 13, 2018, the Court granted our application and dismissed Mr. Gao's lawsuit. On December 21, 2018, the Court granted Mr. Gao leave to appeal its December 13, 2018 order. Pursuant to the Cayman Islands Court of Appeal Rules, Mr. Gao was required to lodge a Notice of Appeal within 14 days of being granted leave to appeal. As of February 25, 2019, the Court of Appeal had no record of a Notice of Appeal relating to this case, and as of the date of this report, the Company has not been served with a Notice of Appeal or any further documents relating to this litigation.

Dividend Policy

We have never declared dividends or paid cash dividends. Any future decisions regarding dividends will be made by our board of directors. We currently intend to retain and use substantially all future earnings for the development and expansion of our business and do not anticipate paying any cash dividends in the foreseeable future. Our board of directors has complete discretion on whether to pay dividends. Even if our board of directors decides to pay dividends, the form, frequency and amount will depend upon our future operations and earnings, capital requirements and surplus, general financial condition, contractual restrictions and other factors that the board of directors may deem relevant.

B. Significant Changes

Except as disclosed elsewhere in this annual report, we have not experienced any significant changes since the date of our audited consolidated financial statements included in this annual report.

ITEM 9. THE OFFER AND LISTING

A. Offer and Listing Details

Our ordinary shares are traded on the Nasdaq Global Select Market under the symbol “CBPO”.

B. Plan of Distribution

Not applicable.

C. Markets

Our ordinary shares are traded on the Nasdaq Global Select Market under the symbol “CBPO”.

D. Selling Shareholders

Not applicable.

E. Dilution

Not applicable.

F. Expenses of the Issue

Not applicable.

ITEM 10. ADDITIONAL INFORMATION

A. Share Capital

Not applicable.

B. Memorandum and Articles of Association.

We are an exempted company incorporated under the laws of the Cayman Islands and our affairs are governed by our memorandum and articles of association, as amended and restated from time to time, and the Companies Law (2016 Revision) of the Cayman Islands (the "Companies Law") and the common law of the Cayman Islands.

Registered Office and Objects

Our registered office in the Cayman Islands is located at the offices of Maples Corporate Services Limited at PO Box 309, Ugland House, Grand Cayman, KY1-1104, Cayman Islands, or at such other location within the Cayman Islands as the Board may from time to time decide. The objects for which our Company is established are unrestricted and we have full power and authority to carry out any object not prohibited by the Companies Law, as amended from time to time, or any other law of the Cayman Islands.

Board of Directors

Our Board currently consists of seven directors. Our Board may exercise all the powers of the Company to borrow money, to mortgage or charge its undertaking, property and uncalled capital, or any part thereof, and to issue debentures, debenture stock or other securities whether outright or as security for any debt, liability or obligation of the Company or of any third party. A director may vote with respect to any contract or transaction in which he or she is interested as long as he or she has made a declaration of the nature of such interest. A director is not required to hold any shares in the Company by way of qualification, and there is no requirement for a director to retire at any age limit.

We have a Compensation Committee that assists the Board in reviewing and approving the compensation structure and form of compensation of our directors and executive officers. Members of the Compensation Committee are not prohibited from direct involvement in determining their own compensation. Our chief executive officer may not be present at any committee meeting during which his compensation is deliberated.

For details of our board committees, see "Item 6.C. Directors, Senior Management and Employees—Board Practices."

Ordinary Shares

General. All of our outstanding ordinary shares are fully paid and non-assessable. Our ordinary shares are issued in registered form, and are issued when entered in our register of members. Our shareholders who are non-residents of the Cayman Islands may freely hold and transfer their ordinary shares.

Dividends. The holders of our ordinary shares are entitled to such dividends as may be declared by our Board, subject to the Companies Law and our memorandum and articles of association, as amended and restated from time to time. Under Cayman Islands law, dividends may be declared and paid only out of funds legally available therefor, namely out of either profit or share premium account, provided that in no circumstances may the Company pay a dividend if this would result in it being unable to pay its debts as they fall due in the ordinary course of business.

Voting Rights. Each holder of ordinary shares is entitled to one vote on all matters upon which the ordinary shares are entitled to vote on a show of hands or, on a poll, each holder is entitled to have one vote for each share registered in his name on the register of members. Voting at any meeting of shareholders is by show of hands unless a poll is demanded. A poll may be demanded by the chairman of the Board or by any one or more shareholders holding at least one-tenth of the votes attaching to the issued and outstanding ordinary shares in the Company entitled to vote at general meetings, present in person or by proxy.

A quorum required for a general meeting of shareholders consists of one or more shareholders who hold in aggregate at least one-third of the votes attaching to the issued and outstanding ordinary shares in the Company entitled to vote at general meetings, present in person or by proxy or, if a corporation or other non-natural person, by its duly authorized representative. A general meeting may be convened by the Board on its own initiative or upon a request to the directors by shareholders holding in aggregate at least 25 per cent. in par value of our issued shares that carry the right to vote at general meetings. An extraordinary general meeting may also be called by the Chairman of the Board or the President of the Company. Advance notice of at least 10 days is required for the convening of our annual general meeting and other shareholders meetings.

An ordinary resolution to be passed by the shareholders requires the affirmative vote of a simple majority of the votes attaching to the ordinary shares cast by those shareholders entitled to vote who are present in person or by proxy in a

general meeting, while a special resolution requires the affirmative vote of no less than two-thirds of the votes attaching to the ordinary shares cast by those shareholders entitled to vote who are present in person or by proxy in a general meeting. Both ordinary resolutions and special resolutions may also be passed by a unanimous written resolution signed by all the shareholders of the Company, as permitted by the Companies Law and our memorandum and articles of association. A special resolution will be required for important matters such as change of name or making changes to the memorandum and articles of association of the Company.

Liquidation. On a winding up of the Company, if the assets available for distribution among its shareholders shall be more than sufficient to repay the whole of the share capital at the commencement of the winding up, the surplus will be distributed among its shareholders in proportion to the par value of the shares held by them at the commencement of the winding up, subject to a deduction from those shares in respect of which there are monies due, of all monies payable to the Company for unpaid calls or otherwise. If the Company's assets available for distribution are insufficient to repay all of the paid-up capital, the assets will be distributed so that the losses are borne by its shareholders in proportion to the par value of the shares held by them.

Calls on Ordinary Shares and Forfeiture of Ordinary Shares. Our Board may from time to time make calls upon shareholders for any amounts unpaid on their ordinary shares in a notice served to such shareholders at least 14 days prior to the specified time of payment. The ordinary shares that have been called upon and remain unpaid are subject to forfeiture.

Redemption, Repurchase and Surrender of Ordinary Shares. The Company may issue shares on terms that are subject to redemption, at the Company's option or at the option of the holders, on such terms and in such manner as may be determined before the issue of such shares, by the Board or by a special resolution of the shareholders of the Company. The Company may also repurchase any of its shares, provided that the manner and terms of such purchase have been agreed between the Board and the relevant shareholder or are otherwise authorized by its memorandum and articles of association. Under the Companies Law, the redemption or repurchase of any share may be paid out of the Company's profits or out of the proceeds of a fresh issue of shares made for the purpose of such redemption or repurchase, or out of capital (including share premium account and capital redemption reserve) if the Company can, immediately following such payment, pay its debts as they fall due in the ordinary course of business. In addition, under the Companies Law no such share may be redeemed or repurchased (a) unless it is fully paid up, (b) if such redemption or repurchase would result in there being no shares outstanding, or (c) if the Company has commenced liquidation. In addition, the Company may accept the surrender of any fully paid share for no consideration.

Variations of Rights of Shares. All or any of the special rights attached to any class of shares may, subject to the provisions of the Companies Law, be varied either with the written consent of the holders of not less than two-thirds of the issued shares of that class or with the sanction of a special resolution passed at a general meeting of the holders of the shares of that class.

Changes in Capital. The Company may from time to time by ordinary resolution:

- increase its share capital by such sum, to be divided into shares of such classes and amount, as the resolution shall prescribe;
- consolidate and divide all or any of its share capital into shares of a larger amount than its existing shares;
- convert all or any of its paid up shares into stock and reconvert that stock into paid up shares of any denomination;
- sub-divide its existing shares, or any of them into shares of a smaller amount that is fixed by the memorandum and articles of association; and

- cancel any shares which, at the date of the passing of the resolution, have not been taken or agreed to be taken by any person and diminish the amount of its share capital by the amount of the shares so cancelled.

Subject to Companies Law and confirmation by the Grand Court of the Cayman Islands on an application by the Company for an order confirming such reduction, the Company may by special resolution reduce its share capital and any capital redemption reserve in any manner authorized by law.

Board's Power to Issue Shares. Our memorandum and articles of association authorize the Board to issue additional ordinary shares from time to time as the Board shall determine, to the extent of available authorized but unissued shares.

Our memorandum and articles of association authorize the Board to establish from time to time one or more series of preferred shares and to determine, with respect to any series of preferred shares, the terms and rights of that series, including:

- the designation of the series;
- the number of shares of the series;
- the dividend rights, dividend rates, conversion rights, voting rights; and
- the rights and terms of redemption and liquidation preferences.

The Board may issue preferred shares without action by the shareholders to the extent authorized but unissued. In addition, the issuance of preferred shares may be used as an anti-takeover device without further action on the part of the shareholders. Issuance of these shares may dilute the voting power of holders of ordinary shares.

Preferred Shares Rights Plan

Each ordinary share includes one right, which we refer to as a Right, that entitles the holder to purchase from us a unit consisting of one-thousandth of a share of the Company's Series A Participating Preferred Stock, par value $0.0001 per share, or the Preferred Stock, at an exercise price of $550.00 per one one-thousandth of a Preferred Share, or the Exercise Price, subject to specified adjustments. The Rights were issued pursuant to a preferred shares rights agreement dated February 22, 2017, as amended and restated on July 28, 2017 and as further amended on February 20, 2019 (the "Rights Agreement"), and Securities Transfer Corporation is the rights agent under the assigned Rights agreement, or the Rights Agent. Until a Right is exercised, the holder of a Right will have no rights to vote or receive

dividends or any other shareholder rights.

The Rights may have anti-takeover effects. The Rights will cause substantial dilution to any person or group that attempts to acquire us without the approval of our Board. As a result, the overall effect of the Rights may be to render more difficult or discourage any attempt to acquire us. Because our Board can approve a redemption of the Rights for a permitted offer, the Rights should not interfere with a merger or other business combination approved by our Board.

The Rights are not immediately exercisable and will become exercisable only upon the occurrence of certain events. In particular:

- if a person or group acquires 15% or more of our ordinary shares (including through derivatives), then the Rights will become exercisable and each Right will entitle its holder (except the acquiring person or group) to purchase, at the Exercise Price, a number of our ordinary shares having a then-current market value of twice the Exercise Price;

- if after a person or group acquires 15% or more of our ordinary shares, we merge into another company, an acquiring entity merges into us or we sell or transfer more than 50% of our assets, cash flow or earning power, then each Right will entitle its holder (except the acquiring person or group) to purchase, for the Exercise Price, a number of shares of common stock of the person engaging in the transaction having a then-current market value of twice the Exercise Price; or

- after a person or group acquires 15% or more of our ordinary shares, the Board may, at its option, exchange the Rights (except for Rights held by the acquiring person or group), in whole or in part, for ordinary shares at an exchange ratio of one ordinary share per Right (subject to adjustment).

The following is a more detailed summary of the terms of the Rights Agreement.

Distribution and Transfer of Rights; Rights Certificates

The Board has declared a dividend of one Right for each outstanding Ordinary Share. Prior to the Distribution Date referred to below:

- the Rights will be evidenced by and trade with the certificates for the Ordinary Shares (or, with respect to any uncertificated Ordinary Shares registered in book entry form, by notation in book entry), together with a copy of this summary of Rights, and no separate rights certificates will be distributed;

- new Ordinary Shares certificates issued after the Record Date will contain a legend incorporating the Rights Agreement by reference (for uncertificated Ordinary Shares registered in book entry form, this legend will be contained in a notation in book entry); and

- the surrender for transfer of any certificates for Ordinary Shares (or the surrender for transfer of any uncertificated Ordinary Shares registered in book entry form) will also constitute the transfer of the Rights associated with such Ordinary Shares.

Rights will accompany any new Ordinary Shares that are issued after the Record Date.

Distribution Date

Subject to certain exceptions specified in the Rights Agreement, the Rights will separate from the Ordinary Shares and become exercisable following (i) the 10th business day (or such later date as may be determined by the Board) after the public announcement that an Acquiring Person has acquired beneficial ownership of 15% or more of the Ordinary Shares or (ii) the 10th business day (or such later date as may be determined by the Board) after a person or group announces a tender or exchange offer that would result in ownership by a person or group of 15% or more of the Ordinary Shares. For purposes of the Rights Agreement, beneficial ownership is defined to include the ownership of derivative securities.

“Acquiring Person” means a person or group of affiliated or associated persons who has acquired beneficial ownership of 15% or more of the Ordinary Shares; provided, however, no person who, at the time of the adoption of the Rights Agreement, beneficially owns 15% or more of the Ordinary Shares shall be deemed to be an Acquiring Person (i.e. a shareholder’s existing ownership of the Ordinary Shares will be grandfathered), unless and until such person acquires beneficial ownership of additional 2% or more of the Ordinary Shares without the pre-approval of the Board.

The date on which the Rights separate from the Ordinary Shares and become exercisable is referred to as the “Distribution Date.”

After the Distribution Date, the Company will mail Rights certificates to the Company’s shareholders as of the close of business on the Distribution Date and the Rights will become transferable apart from the Ordinary Shares. Thereafter, such Rights certificates alone will represent the Rights.

Preferred Shares Purchasable Upon Exercise of Rights

After the Distribution Date, each Right will entitle the holder to purchase, for the Exercise Price, one one-thousandth of a Preferred Share having economic and other terms similar to that of one Ordinary Share. This portion of a Preferred Share is intended to give the shareholder approximately the same dividend, voting and liquidation rights as would one Ordinary Share, and should approximate the value of one Ordinary Share.

More specifically, each one one-thousandth of a Preferred Share, if issued, will:

- not be redeemable;

- entitle holders to quarterly dividend payments of $0.001 per share, or an amount equal to the dividend paid on one Ordinary Share, whichever is greater;

- entitle holders upon liquidation either to receive $1 per share or an amount equal to the payment made on one Ordinary Share, whichever is greater;

- have the same voting power as one Ordinary Share; and

- entitle holders to a per share payment equal to the payment made on one Ordinary Share, if the Ordinary Shares are exchanged via merger, consolidation or a similar transaction.

Flip-In Trigger

If an Acquiring Person obtains beneficial ownership of 15% or more of the Ordinary Shares, then each Right will entitle the holder thereof to purchase, for the Exercise Price, a number of Ordinary Shares (or, in certain circumstances, cash, property or other securities of the Company) having a then-current market value of twice the Exercise Price. However, the Rights are not exercisable following the occurrence of the foregoing event until such time as the Rights are no longer redeemable by the Company, as further described below.

Following the occurrence of an event set forth in preceding paragraph, all Rights that are or, under certain circumstances specified in the Rights Agreement, were beneficially owned by an Acquiring Person or certain of its transferees will be null and void.

Flip-Over Trigger

If, after an Acquiring Person obtains 15% or more of the Ordinary Shares, (i) the Company merges into another entity, (ii) an acquiring entity merges into the Company or (iii) the Company sells or transfers more than 50% of its assets, cash flow or earning power, then each Right (except for Rights that have previously been voided as set forth above) will entitle the holder thereof to purchase, for the Exercise Price, a number of shares of common stock of the person engaging in the transaction having a then-current market value of twice the Exercise Price.

Exchange Provision

At any time after the date on which an Acquiring Person beneficially owns 15% or more of the Ordinary Shares, the Board may, at its option, exchange the Rights (except for Rights that have previously been voided as set forth above),

in whole or in part, for Ordinary Shares at an exchange ratio of one Ordinary Share per Right (subject to adjustment). In certain circumstances, the Company may elect to exchange the Rights for cash or other securities of the Company having a value approximately equal to one Ordinary Share.

Redemption of the Rights

The Rights will be redeemable at the Company's option for $0.001 per Right (payable in cash, Ordinary Shares or other consideration deemed appropriate by the Board) at any time on or prior to the 10th business day (or such later date as may be determined by the Board) after the public announcement that an Acquiring Person has acquired beneficial ownership of 15% or more of the Ordinary Shares. Immediately upon the action of the Board ordering redemption, the Rights will terminate and the only right of the holders of the Rights will be to receive the $0.001 redemption price. The redemption price will be adjusted if the Company undertakes a share dividend or a share split.

Expiration of the Rights

The Rights expire on the earliest of (i) 5:00 p.m., New York City time, February 22, 2021 or (ii) the redemption or exchange of the Rights as described above.

Amendment of Terms of Rights Agreement and Rights

The terms of the Rights and the Rights Agreement may be amended in any respect without the consent of the holders of the Rights on or prior to the Distribution Date. Thereafter, the terms of the Rights and the Rights Agreement may be amended without the consent of the holders of Rights in order to cure any ambiguities, to shorten or lengthen any time period pursuant to the Rights Agreement or to make changes that do not adversely affect the interests of holders of the Rights.

Voting Rights; Other Shareholder Rights

The Rights will not have any voting rights. Until a Right is exercised, the holder thereof, as such, will have no separate rights as shareholder of the Company.

Anti-Dilution Provisions

The Board may adjust the Exercise Price, the number of Preferred Shares issuable and the number of outstanding Rights to prevent dilution that may occur from a share dividend, a share split or a reclassification of the Preferred Shares or Ordinary Shares.

With certain exceptions, no adjustments to the Exercise Price will be made until the cumulative adjustments amount to at least 1% of the Exercise Price. No fractional Preferred Shares will be issued and, in lieu thereof, an adjustment in cash will be made based on the current market price of the Preferred Shares.

Taxes

The distribution of Rights should not be taxable for federal income tax purposes. However, following an event that renders the Rights exercisable or upon redemption of the Rights, shareholders may recognize taxable income.

C. Material Contracts

Other than in the ordinary course of business and other than those described elsewhere in this annual report, we have not entered into any material contract during the two years immediately preceding the date of this annual report.

D. Exchange Controls

See “Item 4.B. Information on the Company—Business Overview—Business—Regulation—Foreign currency exchange” and “Item 4.B. Information on the Company—Business Overview—Business—Regulation—Dividend distributions.”

E. Taxation

The following discussion of the material Cayman Islands, PRC and U.S. federal income tax consequences of an investment in our ordinary shares is based upon laws and relevant interpretations thereof effective as of the date of this annual report, all of which are subject to change. This discussion does not deal with all possible tax consequences relating to the investment in our ordinary shares, such as the tax consequences under laws of countries other than the Cayman Islands, the PRC and the United States or under state and local tax laws.

Cayman Islands Taxation

The Cayman Islands government (or any other taxing authority in the Cayman Islands) currently does not levy taxes on individuals or corporations based upon profits, income, gains or appreciation, and there is no taxation in the Cayman Islands in the nature of inheritance tax or estate duty. There are no other taxes likely to be material to us levied by the government of the Cayman Islands except for stamp duty which may be applicable on instruments executed in, or brought within the jurisdiction of the Cayman Islands. The Cayman Islands is not party to any double tax treaty with any country that is applicable to any payments made to or by us. There are no exchange control regulations or currency restrictions in the Cayman Islands.

PRC Taxation

Under the Corporate Income Tax Law of the PRC (the "CIT Law") and its implementation rules, both effective on January 1, 2008, all domestic and foreign investment companies will be subject to a uniform enterprise income tax at the rate of 25% and dividends from PRC enterprises to their foreign shareholders will be subject to a withholding tax at a rate of 10% if the foreign investors are considered as non-resident enterprises without any establishment or place within the PRC or if the dividends payable have no connection with the establishment or place of the foreign investors within the PRC, unless any such foreign investor's jurisdiction of incorporation has a tax treaty with the PRC that provides for a lower withholding tax rate. In accordance with Caishui (2008) No. 1 issued by the Ministry of Finance, or MOF, and SAT on February 22, 2008, the accumulative undistributed profits of foreign investment companies generated before January 1, 2008, and distributed to foreign investors after year 2008, shall be exempt from withholding tax.

The CIT Law has introduced the concept of "resident enterprises" and corresponding tax liability on resident enterprises' worldwide income, whilst "non-resident enterprises" without any place or establishment in the PRC are required to pay 10% income tax on their passive incomes from sources within China only. A resident enterprise refers to an enterprise that (i) was established/incorporated within the PRC, or (ii) was established/ incorporated under the laws of a foreign jurisdiction but has its "de facto management body" in the PRC. A non-resident enterprise refers to an enterprise which was established/incorporated under the laws of a foreign jurisdiction and does not have its "de facto management body" in the PRC, but has an establishment or place in the PRC, or has China-sourced income even though it does not have any establishment or place in the PRC.

Under the implementation rules of the CIT Law, "de facto management body" is defined as an organization that has material and overall management and control over the business, personnel, accounts and properties of an enterprise. In April 2009, the SAT issued a Notice on Issues Relating to Determination of PRC-Controlled Offshore Enterprises as PRC Resident Enterprises Based on "De Facto Management Body" Test, or SAT Circular No. 82, under which, an offshore enterprise controlled by a PRC enterprise or a PRC enterprise group will be characterized as a "resident enterprise" due to the fact that its "de facto management body" is located within the PRC, if all of the following conditions are met at the same time: (i) the senior management personnel responsible for its daily operations and the place where the senior management departments discharge their responsibilities are located primarily in the PRC, (ii) its finance and human resources related decisions are made by or are subject to the approval of institutions or personnel located in the PRC, (iii) its major assets, books and records, company seals and minutes of its board of directors and shareholder meetings are located or kept in the PRC, and (iv) senior management personnel or 50% or more of the members of its board of directors with voting power of the enterprise reside in the PRC. SAT Circular No. 82 further specifies that the principle of "substance over form" shall be adopted in determining whether the "de facto management body" is located within China.

We currently are not treated as a PRC resident enterprise by the Chinese tax authority and as a result, we have not withheld PRC income taxes from our foreign investors and as a non-resident enterprise, we are subject to PRC withholding tax if we receive dividends directly from our PRC subsidiaries paid by them using funds out of their profits generated on and after January 1, 2008.

Nevertheless, a significant portion of our operations are currently based in the PRC. Moreover, a significant portion of our management team, who are in charge of finance and human resources related decisions, perform their duties mainly in the PRC, and over 50% of our board members habitually reside in the PRC. Our main properties,

accounting books and records, company seals and minutes of board meetings are maintained in China.

However, the rules regarding the determination of the “de facto management body” are relatively new and whether such rules may apply to us is unclear. Due to lack of further written clarification by the SAT, there is still a uncertainty around the interpretation of each of the four conditions as specified in SAT Circular No. 82 and the principle of “substance over form” and the implementation of SAT Circular No. 82 by Chinese tax authorities in practice. It also remains unclear what percentage of shares of an offshore enterprise must be held by a PRC entity or group in order for the offshore enterprise to be deemed as an offshore enterprise controlled by a PRC enterprise or a PRC enterprise group, and whether shares held by PRC resident individuals are counted pursuant to SAT Circular No. 82.

Due to the lack of clear guidance on the determination of our tax residency under the CIT Law, it remains unclear whether the PRC tax authorities will treat us as a PRC resident enterprise. As a result, we cannot express an opinion as to the likelihood that we will be subject to the tax applicable to resident enterprises or non-resident enterprises under the CIT Law. If we are treated as a PRC resident enterprise, we will be subject to PRC tax on our worldwide income at the 25% uniform tax rate, but the dividends distributed from our subsidiaries that are or deemed to be PRC resident enterprises should be tax-exempt income. In addition, if we are considered a PRC resident enterprise, the dividends paid by us to the non-PRC shareholders may be regarded as income from sources within the PRC pursuant to SAT Circular No. 82, and therefore the non-PRC institutional shareholders may be subject to a 10% withholding tax, and the non-PRC individual shareholders may be subject to a 20% withholding tax unless they are able to claim a lower tax rate pursuant to applicable tax treaties. If the non-PRC shareholders are U.S. residents that are eligible for PRC-US Tax Treaty benefits, the application of those benefits to the withholding tax is unclear.

Furthermore, if we are treated as a PRC resident enterprise, there is a possibility that the capital gains realized by our non-PRC shareholders from the transfer of their shares may be regarded as income from sources within the PRC for PRC tax purposes. If such capital gains are taxed in China, the applicable income tax rate would be 10% for non-PRC institutional shareholders, and 20% for non-PRC individual shareholders. If the non-PRC shareholders are U.S. residents that are eligible for PRC-US Tax Treaty benefits, whether capital gains should be taxed in China is unclear.

Pursuant to Paragraph 5 of Article 12 of the PRC-US Tax Treaty, gains from the alienation of shares of a company which is a PRC resident other than those mentioned in paragraph 4 (which refers to shares of a company the property of which consists principally of real property in the PRC) and representing a participation of at least 25% may be taxed in China. Paragraph 6 of Article 12 of the PRC-US Tax Treaty further specifies that “[G]ains derived by a resident of a Contracting State from the alienation of any property other than that referred to in paragraphs 1 through 5 and arising in the other Contracting State may be taxed in that other Contracting State.” By virtue of this provision, the capital gains realized by U.S. residents may be taxed in the PRC if the capital gains are considered as “arising in” the PRC. Under the CIT Law and its implementing rules, the capital gains from transfer of shares may be considered as “arising in” the PRC if the enterprise whose shares are transferred is “located in” China. If we are considered a PRC resident enterprise, and if the Chinese tax authorities take the position that a PRC resident enterprise is deemed to be located in China, the capital gains realized by the U.S. residents from transfer of their shares may be taxed in the PRC depending on how the PRC-US Tax Treaty is interpreted and implemented by the Chinese tax authorities.

United States Taxation

The following is a discussion of material U.S. federal income tax consequences to U.S. Holders, as defined below, of owning and disposing of our ordinary shares. It does not purport to be a comprehensive description of all tax considerations that may be relevant to a particular investor’s decision to own our ordinary shares. This discussion applies only to U.S. Holders that own our ordinary shares as capital assets for U.S. federal income tax purposes. In addition, it does not describe all of the tax consequences that may be relevant in light of a U.S. Holder’s particular circumstances, including alternative minimum tax consequences, any aspect of the Medicare contribution tax on “net

investment income" and tax consequences applicable to U.S. Holders subject to other special rules, such as, but not limited to:

- certain financial institutions;
- dealers or traders in securities who use a mark-to-market method of tax accounting;
- persons holding our ordinary shares as part of a straddle, conversion transaction or integrated transaction or persons entering into a constructive sale with respect to our ordinary shares;
- persons whose functional currency for U.S. federal income tax purposes is not the U.S. dollar;
- entities classified as partnerships or other pass-through entities for U.S. federal income tax purposes;
- tax-exempt entities, "individual retirement accounts" and "Roth IRAs";
- persons who acquired our ordinary shares pursuant to the exercise of an employee stock option or otherwise as compensation; or
- persons holding our ordinary shares in connection with a trade or business conducted outside of the United States.

If an entity that is classified as a partnership for U.S. federal income tax purposes holds our ordinary shares, the U.S. federal income tax treatment of a partner will generally depend on the status of the partner and the activities of the partnership. Partnerships holding our ordinary shares, and partners in such partnerships, should consult their tax advisers as to the U.S. federal income tax consequences of owning and disposing of our ordinary shares.

This discussion is based on the Code, administrative pronouncements, judicial decisions, and final, temporary and proposed Treasury regulations, all as of the date hereof, any of which is subject to change, possibly with retroactive effect.

Pursuant to Section 7874 of the Code, we are treated as a U.S. corporation for U.S. federal income tax purposes and the discussion herein is based on this treatment.

For purposes of this discussion, a "U.S. Holder" is a beneficial owner of our ordinary shares who for U.S. federal income tax purposes is:

- an individual citizen or resident of the United States;

- a corporation, or other entity taxable as a corporation, created or organized in or under the laws of the United States, any state therein or the District of Columbia; or

· an estate or trust the income of which is subject to U.S. federal income taxation regardless of its source.

U.S. Holders should consult their own tax advisers concerning the U.S. federal, state, local and foreign tax consequences of acquiring, owning and disposing of our ordinary shares in their particular circumstances.

Taxation of Distributions. Distributions paid on our ordinary shares, other than certain *pro rata* distributions of our ordinary shares, will be treated as dividends to the extent paid out of our current or accumulated earnings and profits and will be includable in a U.S. Holder's income and taxable as ordinary dividend income when received. If a distribution exceeds our current and accumulated earnings and profits, the excess will be first treated as a tax-free return of capital, to the extent of the U.S. Holder's tax basis in the ordinary shares. Any remaining excess will be treated as gain from the sale or other taxable disposition of the ordinary shares. Dividends received by a non-corporate U.S. Holder may be eligible to be taxed at reduced rates if certain holding period and other applicable requirements are met. Dividends received by a corporate U.S. Holder may be eligible for the dividends-received deduction if certain holding period requirements and other applicable requirements are met.

Dividends will be treated as U.S.-source for U.S. federal income tax purposes. As described in "Item 10.E. Taxation—PRC Taxation," if we were deemed to be a PRC resident enterprise for PRC tax purposes, dividends paid with respect to our ordinary shares might be subject to PRC withholding taxes. For U.S. federal income tax purposes, the amount of a dividend would include any amounts withheld by us in respect of PRC taxes. U.S. Holders should consult their tax advisers as to whether the rate of any such PRC taxes may be reduced under the provisions of the U.S.-PRC income tax treaty and the creditability of such PRC taxes in their particular circumstances.

Sale or Other Disposition of Our Ordinary Shares.

Upon the sale or other taxable disposition of our ordinary shares, a U.S. Holder will recognize gain or loss equal to the difference between the amount realized on the sale or other taxable disposition and its tax basis in the ordinary shares. Gain or loss realized on the sale or other disposition of the ordinary shares will be capital gain or loss, and will be long-term capital gain or loss if the U.S. Holder owned the ordinary shares for more than one year. Long-term capital gains recognized by non-corporate taxpayers are currently subject to reduced tax rates. The deductibility of capital losses is subject to limitations.

As described in "Item 10.E. Taxation—PRC Taxation," if we were deemed to be a PRC resident enterprise for PRC tax purposes, gains from dispositions of our ordinary shares might be subject to PRC tax. In that case, a U.S. Holder's amount realized would include any amounts paid in respect of PRC taxes. Capital gains realized by a U.S. Holder will give rise to U.S.-source gain for foreign tax credit purposes. U.S. Holders should consult their tax advisers as to the creditability of such PRC taxes in their particular circumstances.

Information Reporting and Backup Withholding.

Payments of dividends with respect to our ordinary shares and proceeds from the sale, exchange or redemption of our ordinary shares generally are subject to information reporting, and may be subject to backup withholding, unless (1) the U.S. Holder is a corporation or other exempt recipient or (2) in the case of backup withholding, the U.S. Holder provides a correct taxpayer identification number and certifies that it is not subject to backup withholding.

Backup withholding is not an additional tax. The amount of any backup withholding from a payment to a U.S. Holder may be refunded or credited against the U.S. Holder's U.S. federal income tax liability, provided that the required information is timely furnished to the Internal Revenue Service. U.S. Holders should consult their tax advisers regarding the effect, if any, of these rules on their ownership and disposition of our ordinary shares.

FATCA. Provisions commonly referred to as ''FATCA" impose withholding of 30% on payments of dividends on, and gross proceeds from dispositions of, our ordinary shares that are held through ''foreign financial institutions'' (which is broadly defined for this purpose and in general includes investment vehicles) and certain other non-U.S. entities unless various U.S. information reporting and due diligence requirements (generally relating to ownership by U.S. persons of certain interests in or accounts with those entities) have been satisfied or an exemption applies. However, regulations proposed by the U.S. Treasury Department on December 18, 2018 indicate an intent to eliminate the requirement under FATCA of withholding on proceeds from dispositions (other than amounts treated as interest). The U.S. Treasury Department has indicated that taxpayers may rely on these proposed regulations pending their finalization. An intergovernmental agreement between the United States and an applicable foreign country may modify these requirements. U.S. Holders should consult their tax advisers regarding the effect, if any, of the FATCA provisions on their particular circumstances.

F. Dividends and Paying Agents

Not applicable.

G. Statement by Experts

Not applicable.

H. Documents on Display

We are subject to periodic reporting and other informational requirements of the Exchange Act as applicable to foreign private issuers, and are required to file reports and other information with the SEC. Specifically, we are required to file annually an annual report on Form 20-F within four months after the end of each fiscal year, which is December 31. All information filed with the SEC can be obtained over the internet at the SEC's website at www.sec.gov or inspected and copied at the public reference facilities maintained by the SEC at 100 F Street, N.E., Washington, D.C. 20549. You can request copies of documents, upon payment of a duplicating fee, by writing to the SEC. As a foreign private issuer, we are exempt from the rules under the Exchange Act prescribing the furnishing and content of quarterly reports and proxy statements, and officers, directors and principal shareholders are exempt from the reporting and short-swing profit recovery provisions contained in Section 16 of the Exchange Act.

In accordance with Nasdaq Stock Market Rule 5250(d), we will post this annual report on Form 20-F on our website at www.chinabiologic.com. In addition, we will provide hardcopies of our annual report free of charge to shareholders upon request.

I. Subsidiary Information

Not applicable.

ITEM 11. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK.

Our operations are carried out in the PRC and we are subject to specific considerations and significant risks not typically associated with companies in North America and Western Europe. Accordingly, our business, financial condition and results of operations may be influenced by the political, economic and legal environment in the PRC, and by the general state of the PRC economy. Our results may be adversely affected by changes in governmental policies with respect to laws and regulations, anti-inflationary measures, currency conversion and remittance abroad, and rates and methods of taxation, among other things.

Interest Rate Risk

We are exposed to interest rate risk primarily with respect to our bank deposits. We have not used any derivative financial instruments to manage our interest rate risk exposure. We have not been exposed nor do we anticipate being exposed to material risks due to changes in interest rates. However, our future interest expenses may increase due to changes in market interest rates.

Based on our cash balance as of December 31, 2018, a one basis point decrease in interest rates would result in approximately a US$8.8 million decrease in our interest income on an annual basis. Our future interest income may fluctuate in line with changes in interest rates. However, the risk associated with fluctuating interest rates is principally confined to our interest-bearing cash deposits, and, therefore, our exposure to interest rate risk is limited.

Management monitors the banks' prime rates in conjunction with our cash requirements to determine the appropriate level of debt balances relative to other sources of funds. We have not entered into any hedging transactions in an effort

to reduce our exposure to interest rate risk.

Foreign Exchange Risk

Substantially, all our consolidated revenues and consolidated costs and majority of expenses are denominated in RMB. All of our assets are denominated in RMB, except certain cash balances. However, our reporting currency is U.S. dollars. As a result, we are exposed to foreign exchange risk as our revenues and results of operations may be affected by fluctuations in the exchange rate between U.S. dollars and RMB. If RMB depreciates against the U.S. dollars, the value of our RMB revenues, earnings and assets as expressed in our U.S. dollar financial statements will decline. Assets and liabilities are translated at exchange rates at the balance sheet dates and revenue and expenses are translated at the average exchange rates and shareholders' equity is translated at historical exchange rates. Any resulting translation adjustments are not included in determining net income but are included in determining other comprehensive income, a component of shareholders' equity. An average appreciation (depreciation) of the RMB against the U.S. dollar of 5% would increase (decrease) our comprehensive income by $2.3 million based on our outstanding revenues, costs and expenses denominated in RMB for the year ended December 31, 2018, and assets and liabilities denominated in RMB as of December 31, 2018. As of December 31, 2018, our accumulated other comprehensive loss was $45.7 million. We have not entered into any hedging transactions in an effort to reduce our exposure to foreign exchange risk. See "Item 3.D. Key Information—Risk Factors—Risks Relating to Doing Business in China—Restrictions on currency exchange may limit our ability to use our revenue effectively." and "Item 3.D. Key Information—Risk Factors—Risks Relating to Doing Business in China—Fluctuations in exchange rates could adversely affect our business and the value of our securities."

Account Balances

We maintain cash balances at financial institutions which, from time to time, may exceed Federal Deposit Insurance Corporation insured limits for bank accounts located in the United States or may exceed Hong Kong Deposit Protection Board insured limits for bank accounts located in Hong Kong or may exceed the insured limits for bank accounts in China established by the People's Bank of China. Our total cash at banks and deposits, including cash and equivalents, time deposits and short term investment, as of December 31, 2018 and December 31, 2017 amounted to $951.3 million and $241.8 million respectively, $3.2 million and $2.6 million of which are covered by insurance, respectively. We have not experienced any losses in such accounts and we do not believe that we are exposed to any significant risks on our cash at banks and deposits.

Inflation

Inflationary factors such as increases in the cost of our sales and overhead costs may adversely affect our operating results. Although we do not believe that inflation has had a material impact on our financial position or results of operations to date, a high rate of inflation in the future may have an adverse effect on our ability to maintain current levels of gross profit and selling, general and administrative expenses as a percentage of net sales if the selling prices

of our products do not increase with these increased costs.

ITEM 12. DESCRIPTION OF SECURITIES OTHER THAN EQUITY SECURITIES

A. Debt Securities

Not applicable.

B. Warrants and Rights

Not applicable.

C. Other Securities

Not applicable.

D. American Depositary Shares

Not applicable.

PART II

ITEM 13. DEFAULTS, DIVIDEND ARREARAGES AND DELINQUENCIES

None.

ITEM 14. MATERIAL MODIFICATIONS TO THE RIGHTS OF SECURITY HOLDERS AND USE OF PROCEEDS

None.

ITEM 15. CONTROLS AND PROCEDURES.

Evaluation of Disclosure Controls and Procedures

We maintain disclosure controls and procedures (as defined in Rule 13a-15(e) under the Exchange Act) that are designed to ensure that information that would be required to be disclosed in Exchange Act reports is recorded, processed, summarized and reported within the time period specified in the SEC's rules and forms, and that such information is accumulated and communicated to our management, including to our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

As required by Rule 13a-15(b) promulgated under the Securities Exchange Act, our management, with the participation of our Chief Executive Officer and Chief Financial Officer, evaluated the design and operating effectiveness as of December 31, 2018 of our disclosure controls and procedures, as defined in Rule 13a-15(e) promulgated under the Securities Exchange Act. Based on this evaluation our Chief Executive Officer and Chief Financial Officer concluded that, as of December 31, 2018, our disclosure controls and procedures were effective at the reasonable assurance level to enable our company to record, process, summarize and report information required under the SEC's rules in a timely manner.

Management's Annual Report on Internal Control over Financial Reporting

Internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) refers to the process designed by, or under the supervision of, our Chief Executive Officer, and effected by our board of directors, management and other personnel, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. Management is responsible for establishing and maintaining adequate internal control over financial reporting.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Management evaluated the effectiveness of our internal control over financial reporting as of December 31, 2018. As permitted, that evaluation excluded the business operations of TianXinFu which was acquired in 2018. The acquired business operations excluded from our evaluation associated with total assets of $348,885,628 and total revenues of $44,711,325 included in the consolidated financial statements as of and for the year ended December 31, 2018. The operations of the acquired business will be included in our 2019 evaluation. In making this evaluation, management used the framework established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission, or COSO. The COSO framework summarizes each of the components of a company's internal control system, including the control environment, risk assessment, control activities, information and communication, and monitoring activities. Based on our evaluation we determined that our internal control over financial reporting was effective as of December 31, 2018.

Our internal control over financial reporting as of December 31, 2018 has been audited by our independent registered public accounting firm as stated in their report which is included in Part II, Item 9A of this Form 20-F.

Report of Independent Registered Public Accounting Firm

To the Shareholders and Board of Directors
China Biologic Products Holdings, Inc.:

Opinion on Internal Control Over Financial Reporting

We have audited China Biologic Products Holdings, Inc. and subsidiaries (the "Company") internal control over financial reporting as of December 31, 2018, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2018, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of December 31, 2018 and 2017, and the related consolidated statements of comprehensive income, changes in equity, and cash flows for each of the years in the three-year period ended December 31, 2018 and related notes (collectively, the "consolidated financial statements"), and our report dated March 6, 2019 expressed an unqualified opinion on those consolidated financial statements.

The Company acquired TianXinFu (Beijing) Medical Appliance Co., Ltd. ("TianXinFu") during 2018, and management excluded from its assessment of the effectiveness of the Company's internal control over financial reporting as of December 31, 2018, TianXinFu's internal control over financial reporting associated with total assets of $348,885,628 and total revenues of $44,711,325 included in the consolidated financial statements of the Company as of and for the year ended December 31, 2018. Our audit of internal control over financial reporting of the Company also excluded an evaluation of the internal control over financial reporting of TianXinFu.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Annual Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ KPMG Huazhen LLP

Beijing, China
March 6, 2019

Changes in Internal Controls over Financial Reporting

There were no changes in our internal control over financial reporting (as defined in Exchange Act Rules 13a-15(d) and 15d-15(f)) during the year ended December 31, 2018 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

ITEM 16A. AUDIT COMMITTEE FINANCIAL EXPERT

See “Item 6.C. Directors, Senior Management and Employees—Board Practices.”

ITEM 16B. CODE OF ETHICS

On March 25, 2008, our Board adopted a code of ethics, which applies to all of our directors, officers and employees, including our CEO and CFO. The code of ethics is designed to deter wrongdoing and to promote: honest and ethical conduct, including the ethical handling of actual or apparent conflicts of interest between personal and professional relationships; full, fair, accurate, timely and understandable disclosure in reports and documents that we file with, or submit to, the SEC, and in other public communications that we made; compliance with applicable laws, rules and regulations; the prompt internal reporting of violations of the code to the appropriate person or persons; and accountability for adherence to the code. We believe that our reputation is a valuable asset and must continually be guarded by all associated with us so as to earn the trust, confidence and respect of our suppliers, customers and shareholders. Our Board amended the code of ethics on March 11, 2013 and further amended it on March 4, 2019, to update certain administrative information in the code.

The code of ethics is maintained on the Company's website at www.chinabiologic.com. Printed copies of our code of ethics may be obtained, without charge, by contacting the Corporate Secretary, China Biologic Products Holdings, Inc., 18th Floor, Jialong International Building, 19 Chaoyang Park Road, Chaoyang District, Beijing 100125, People's Republic of China. During the fiscal year ended December 31, 2018, there were no waivers of our code of ethics.

ITEM 16C. PRINCIPAL ACCOUNTANT FEES AND SERVICES

Aggregate fees billed to the Company by our independent accountant, KPMG Huazhen LLP ("KPMG"), during the last two fiscal years were as follows:

	2018	2017
Audit Fees	$887,973	$821,635
Audit Related Fees	-	146,382
Tax Fees	41,489	44,138
Total	$929,462	$1,012,155

Audit fees paid to KPMG consist of fees billed for professional services rendered for the audit of the Company's consolidated annual financial statements and audit of the effectiveness of internal control over financial reporting, and services that are normally provided by our auditors in connection with statutory and regulatory filings or engagements.

Audit related fees paid by us to KPMG in 2017 refer to fees incurred for professional services rendered for due diligence pertaining to business combination of TianXinFu.

Tax fees paid by us to KPMG of $41,489 and $44,138 in 2018 and 2017, respectively, were for tax compliance services in the same periods.

In accordance with the Audit Committee's pre-approval policies and procedures described below, in 2018, all audit, audit-related and tax performed by KPMG were approved in advance by the Audit Committee. KPMG was our principal auditor.

Pre-Approval Policies and Procedures

Under the Sarbanes-Oxley Act of 2002, all audit and non-audit services performed by our auditors must be approved in advance by our Audit Committee to assure that such services do not impair the auditors' independence from us.

ITEM 16D. EXEMPTIONS FROM THE LISTING STANDARDS FOR AUDIT COMMITTEES

None.

ITEM 16E. PURCHASE OF EQUITY SECURITIES BY THE ISSUER AND AFFILIATED PURCHASERS

None.

ITEM 16F. CHANGE IN REGISTRANT'S CERTIFYING ACCOUNTANT

None.

ITEM 16G. CORPORATE GOVERNANCE

As a Cayman Islands company listed on Nasdaq, we are subject to the Nasdaq corporate governance listing standards. However, Nasdaq rules permit a foreign private issuer like us to follow the corporate governance practices of its home country. Certain corporate governance practices in the Cayman Islands, which is our home country, may differ significantly from the Nasdaq corporate governance listing standards.

The Company has elected to follow Cayman Islands home country practice with respect to effecting an acquisition transaction without the requirement to obtain shareholder approval, in lieu of the corporate governance requirements of Nasdaq Listing Rule 5635(a) with respect to shareholder approval. The Company has also elected to follow Cayman Islands home country practice regarding the composition of the board of directors in lieu of Nasdaq Listing Rule 5605(b) that requires a majority of the board of directors to be comprised of independent directors.

Except as set forth above, there are no material differences between our corporate governance practices and those followed by U.S. domestic companies under Nasdaq Stock Market Rules.

However, if we choose to follow other home country practice in the future, our shareholders may be afforded less protection than they otherwise would under the Nasdaq corporate governance listing standards applicable to U.S. domestic issuers. See "Item 3.D. Key Information—Risk Factors—Risks Relating to Our Ordinary Shares—As a Cayman

Islands company, we are permitted to adopt certain home country practices in relation to corporate governance matters that differ significantly from Nasdaq corporate governance listing standards; these practices may afford less protection to shareholders than they would enjoy under Nasdaq corporate governance listing standards."

ITEM 16H. MINE SAFETY DISCLOSURE

Not applicable.

PART III.

ITEM 17. FINANCIAL STATEMENTS

We have elected to provide financial statements pursuant to Item 18.

ITEM 18. FINANCIAL STATEMENTS

The consolidated financial statements for China Biologic Products Holdings, Inc. and its subsidiaries are included at the end of this annual report.

ITEM 19. EXHIBITS

Exhibit List

The list of exhibits in the Exhibit Index to this Report is incorporated herein by reference.

EXHIBIT INDEX

Exhibit No.	Description
1.1*	Amended and Restated Memorandum and Articles of Association of China Biologic Products Holdings, Inc.
2.1	Specimen Ordinary Share Certificate of China Biologic Products Holdings, Inc. (incorporated by reference to Exhibit 4.2 of the Form 8-A filed by the registrant on August 3, 2017)
2.2	Amended and Restated Preferred Shares Rights Agreement, dated as of July 31, 2017, by and between China Biologic Products Holdings, Inc. and Securities Transfer Corporation (incorporated by reference to Exhibit 4.1 of the Form 8-A filed by the registrant on August 3, 2017)
2.3	Investor Rights Agreement, dated as of January 1, 2018, by and between China Biologic Products Holdings, Inc. and PW Medtech Group Limited (incorporated by reference to Exhibit 99.2 of the Form 6-K furnished to the SEC by the registrant on January 3, 2018)
2.4	Investor Rights Agreement, dated as of August 24, 2018, by and between China Biologic Products Holdings, Inc. and Beachhead Holdings Limited (incorporated by reference to Exhibit 99.5 of the Form 6-K furnished to the SEC by the registrant on August 27, 2018)
2.5	Investor Rights Agreement, dated as of August 24, 2018, by and between China Biologic Products Holdings, Inc. and CITIC Capital MB Investment Limited (incorporated by reference to Exhibit 99.6 of the Form 6-K furnished to the SEC by the registrant on August 27, 2018)
2.6	Investor Rights Agreement, dated as of August 24, 2018, by and between China Biologic Products Holdings, Inc. and HH China Bio Holdings LLC (incorporated by reference to Exhibit 99.7 of the Form 6-K furnished to the SEC by the registrant on August 27, 2018)
2.7	Amendment No. 1 to Amended and Restated Preferred Shares Rights Agreement, dated as of February 20, 2019, by and between China Biologic Products Holdings, Inc. and Securities Transfer Corporation (incorporated by reference to Exhibit 99.1 of the Form 6-K furnished by the registrant on February 20, 2019)
4.1	China Biologic Products Holdings, Inc. 2008 Equity Incentive Plan (as assumed and amended on July 21, 2017) (incorporated by reference to Exhibit 4.2 of the Post-Effective Amendment No. 1 to Form S-8 filed by the registrant on July 21, 2017)
4.2	Form of Stock Option Award Agreement of China Biologic Products, Inc. (incorporated by reference to Exhibit 10.5 of the current report on Form 8-K filed by the registrant on May 13, 2008)
4.3	Form of Restricted Stock Award Agreement of China Biologic Products, Inc. (incorporated by reference to Exhibit 3.3 of the quarterly report on Form 10-Q filed by the registrant on August 6, 2013)
4.4	

	Group Secondment Agreement, dated October 28, 2002, between Shandong Taibang and the Shandong Institute (English Translation) (incorporated by reference to Exhibit 10.1 of the registration statement on Form SB-2/A filed by the registrant on December 3, 2007)
4.5	Amended and Restated Joint Venture Agreement, between Logic Express Limited and the Shandong Institute, dated as of March 12, 2006 (English Translation) (incorporated by reference to Exhibit 10.2 of the registration statement on Form SB-2 filed by the registrant on September 5, 2007)
4.6	Letter of Intent for Equity Transfer, between Logic Express Limited and the Shandong Institute, dated as of June 10, 2006 (English Translation) (incorporated by reference to Exhibit 10.3 of the registration statement on Form SB-2 filed by the registrant on September 5, 2007)
4.7	Joint Venture and Cooperation Agreement between Shandong Taibang and Shaanxi Power Construction Corporation, dated September 12, 2008 (incorporated by reference to Exhibit 10.2 of the current report on Form 8-K filed by the registrant on October 16, 2008)
4.8	Agreement on Equity Transfer, Acquisition, Joint Venture and Cooperation, among Shandong Taibang, Shaanxi Power Construction Corporation and Mr. Fan Qingchu, dated September 12, 2008 (incorporated by reference to Exhibit 10.3 of the current report on Form 8-K filed by the registrant on October 16, 2008)
4.9	(Shareholder) Agreement among Shandong Taibang, Logic Express Limited and Biological Institute dated September 12, 2008 (incorporated by reference to Exhibit 10.4 of the current report on Form 8-K, filed by the registrant on October 16, 2008)
4.10	Equity Transfer Agreement, dated September 26, 2008, among Logic Express Limited, Chongqing Dalin Biologic Technologies Co., Ltd. and certain shareholders of Chongqing Dalin Biologic Technologies Co., Ltd. (incorporated by reference to Exhibit 10.1 of the current report on Form 8-K filed by the registrant on October 2, 2008)
4.11	Equity Transfer Agreement, between Shandong Taibang and Mr. Fan Qingchun, dated October 10, 2008 (incorporated by reference to Exhibit 10.1 of the current report on Form 8-K filed by the registrant on October 16, 2008)

4.12	Supplemental Agreement, dated November 3, 2008, among Logic Express Limited, Fan Shaowen, as representative of the shareholders of Chongqing Dalin Biologic Technologies Co., Ltd. and Chongqing Dalin Biologic Technologies Co., Ltd. (English Translation) (incorporated by reference to Exhibit 10.2 of the current report on Form 8-K filed by the registrant on November 7, 2008)
4.13	Second Supplemental Agreement, dated November 14, 2008, among Logic Express Limited, Fan Shaowen as representative of the shareholders of Chongqing Dalin Biologic Technologies Co., Ltd. and Chongqing Dalin Biologic Technologies Co., Ltd. (English Translation) (incorporated by reference to exhibit 10.3 of the current report on Form 8-K filed by the registrant on November 20, 2008)
4.14	Amended Equity Transfer Agreement, dated December 12, 2008, among Logic Express Limited, Chongqing Dalin Biologic Technologies Co., Ltd., and certain shareholders of Chongqing Dalin Biologic Technologies Co., Ltd. (English Translation) (incorporated by reference to exhibit 10.4 of the current report on Form 8-K filed by the registrant on December 18, 2008)
4.15	Equity Transfer and Entrustment Agreement, dated April 6, 2009, among Logic Express, Shandong Taibang and the Shandong Institute (English Translation) (incorporated by reference to Exhibit 10.6 of the current report on Form 8-K filed by the registrant on April 13, 2009)
4.16	Asset Purchase Agreement, between Xia Jin An Tai Plasma Collection Co., Ltd. and Xia Jin County Plasma Collection Station, dated as of October 20, 2006 (English Translation) (incorporated by reference to Exhibit 10.15 of the registration statement on Form SB-2/A filed by the registrant on December 3, 2007)
4.17	Asset Purchase Agreement, between Liao Cheng An Tai Plasma Collection Co., Ltd. and Yang Gu County Plasma Collection Station, dated as of November 3, 2006 (English Translation) (incorporated by reference to Exhibit 10.16 of the registration statement on Form SB-2/A filed by the registrant on December 3, 2007)
4.18	Asset Purchase Agreement, between Qi He An Tai Plasma Collection Co., Ltd. and Qi He County Plasma Collection Station, dated as of November 9, 2006 (English Translation) (incorporated by reference to Exhibit 10.14 of the registration statement on Form SB-2/A filed by the registrant on December 3, 2007)
4.19	Asset Purchase Agreement, between He Ze An Tai Plasma Collection Co., Ltd and Yun Cheng County Plasma Collection Station, dated as of December 15, 2006 (English Translation) (incorporated by reference to Exhibit 10.22 of the registration statement on Form SB-2/A filed by the registrant on December 3, 2007)
4.20	Asset Purchase Agreement, between Zhang Qiu An Tai Plasma Collection Co., Ltd. and Zhang Qiu Plasma Collection Station, dated as of December 31, 2006 (English Translation) (incorporated by reference to Exhibit 10.12 of the registration statement on Form SB-2/A filed by the registrant on December 3, 2007)
4.21	Asset Purchase Agreement, between Guang Xi Huan Jiang Missile Plasma Collection Co., Ltd. and Huan Jiang Maonan Autonomous County Plasma Collection Station, dated as of April 24, 2007 (English Translation) (incorporated by reference to Exhibit 10.13 of the registration statement on Form SB-2/A filed by the registrant on December 3, 2007)
4.22	Asset Purchase Agreement, between Fang Cheng Plasma Collection Co., Ltd. and Fang Cheng Plasma Company, dated as of April 30, 2007 (English Translation) (incorporated by reference to Exhibit 10.21 of the registration statement on Form SB-2/A filed by the registrant on December 3, 2007)

4.23	Asset Purchase Agreement, between Guang Xi Huan Jiang Missile Plasma Collection Co., Ltd. and Huan Jiang Maonan Autonomous County Plasma Collection Station, dated as of April 24, 2007 (English Translation) (incorporated by reference to Exhibit 10.13 of the registration statement on Form SB-2/A filed by the registrant on December 3, 2007)
4.24	Trademark Licensing Agreement, dated as of February 27, 2007 (English Translation) (incorporated by reference to Exhibit 10.17 of the registration statement on Form SB-2/A filed by the registrant on December 3, 2007)
4.25	Loan Agreement, dated as of November 30, 2006, among Shandong Taibang and the Shandong Institute and Logic Express (English Translation) (incorporated by reference to Exhibit 10.18 of the registration statement on Form SB-2/A filed by the registrant on December 3, 2007)
4.26	Supplementary Agreement, dated as of September 1, 2007, among Shandong Taibang, the Shandong Institute and Logic Express Limited (English Translation) (incorporated by reference to Exhibit 10.19 of the registration statement on Form SB-2/A filed by the registrant on December 3, 2007)
4.27	Form of Director's Employment Agreement (incorporated by reference to Exhibit 10.8 of the registration statement on Form SB-2 filed by the registrant on September 5, 2007)
4.28	Form of Independent Director Agreement (incorporated by reference to Exhibit 10.1 of the current report on Form 8-K filed by the registrant on July 30, 2008)
4.29	Form of Indemnity Agreement (incorporated by reference to Exhibit 10.2 of the current report on Form 8-K filed by the registrant on July 30, 2008)
4.30	Form of Guarantee and Pledge Agreement, (incorporated by reference to Exhibit 10.2 of the current report on Form 8-K filed by the registrant on June 5, 2009).
4.31	Form of Indemnification Agreement, (incorporated by reference to Exhibit 10.3 of the current report on Form 8-K filed by the registrant on June 5, 2009).

4.32	Cooperation Agreement, among Guizhou Taibang, Xinjiang Deyuan and its controlling shareholder, dated August 28, 2015 (Summary English Translation) (incorporated by reference to Exhibit 10.1 of the current report on Form 8-K filed by the registrant on September 2, 2015)
4.33	Supplemental Agreement, between Guizhou Taibang and Xinjiang Deyuan, dated April 16, 2015 (Summary English Translation) (incorporated by reference to Exhibit 10.2 of the current report on Form 8-K filed by the registrant on April 16, 2015)
4.34	Cooperation Agreement, between Guizhou Taibang and Xinjiang Deyuan, dated September 30, 2014 (Summary English Translation) (incorporated by reference to Exhibit 10.1 of the current report on Form 8-K filed by the registrant on April 16, 2015)
4.35	Registered Equity Purchase Agreement, between Guiyang Dalin Biotechnology Co., Ltd. and Guizhou Eakan Pharmaceutical Co., Ltd., dated August 21, 2014 (Summary English Translation) (incorporated by reference to Exhibit 10.1 of the current report on Form 8-K filed by the registrant on August 25, 2014)
4.36	Equity Exchange Agreement, between Guiyang Dalin Biotechnology Co., Ltd. and Guizhou Eakan Pharmaceutical Co., Ltd., dated August 21, 2014 (Summary English Translation) (incorporated by reference to Exhibit 10.2 of the current report on Form 8-K filed by the registrant on August 25, 2014)
4.37	Unregistered Equity Purchase Agreement, between Guiyang Dalin Biotechnology Co., Ltd. and Guizhou Eakan Pharmaceutical Co., Ltd., dated August 21, 2014 (Summary English Translation) (incorporated by reference to Exhibit 10.3 of the current report on Form 8-K filed by the registrant on August 25, 2014)
4.38	Summary English translation of Settlement Agreement among Guizhou Taibang Biological Products Co., Ltd., Guiyang Dalin Biologic Technologies Co., Ltd., Guizhou Jie'an Company and Shenzhen Yigong Shengda Technology Co., Ltd. dated July 31, 2016 (incorporated by reference to Exhibit 10.1 of the Quarterly Report on Form 10-Q filed by the registrant on August 4, 2016)
4.39	Summary English translation of Guarantee Agreement among Guizhou Taibang Biological Products Co., Ltd., Guiyang Dalin Biologic Technologies Co., Ltd., Guizhou Jie'an Company and Shenzhen Yigong Shengda Technology Co., Ltd. dated July 31, 2016 (incorporated by reference to Exhibit 10.2 of the Quarterly Report on Form 10-Q filed by the registrant on August 4, 2016)
4.40*	Employment Agreement between the Company and Bing Li dated August 13, 2018
4.41*	Third Amended and Restated Employment Agreement between the Company and Ming Yang dated August 31, 2018
4.42*	Employment Agreement between the Company and Huaming He dated December 3, 2018
4.43	Agreement and Plan of Merger by and between China Biologic Products, Inc. and China Biologic Products Holdings, Inc. dated April 28, 2017 (incorporated by reference to Exhibit 2.1 of the Current Report on Form 8-K filed by the registrant on April 28, 2017)
4.44	Share Exchange Agreement by and between China Biologic Products Holdings, Inc. and PW Medtech Group Limited dated October 12, 2017 (incorporated by reference to Exhibit 99.2 of the Form 6-K furnished to the

	SEC by the registrant on October 13, 2017)
4.45	Amendment No. 1 to the Share Exchange Agreement, dated as of December 29, 2017, by and between China Biologic Products Holdings, Inc. and PW Medtech Group Limited (incorporated by reference to Exhibit 99.1 of the Form 6-K furnished to the SEC by the registrant on December 29, 2017)
4.46	Supplemental Agreement to Strategic Cooperation Agreement to Source Raw Plasma dated August 1, 2018 made by and among Xinjiang Deyuan, Guizhou Taibang and Lv Xianzhong (Summary English translation) (incorporated by reference to Exhibit 99.2 of the Form 6-K furnished to the SEC by the registrant on August 3, 2018)
4.47	Share Purchase Agreement by and among China Biologic Products Holdings, Inc., Beachhead Holdings Limited and Double Double Holdings Limited dated as of August 24, 2018 (incorporated by reference to Exhibit 99.1 of the Form 6-K furnished to the SEC by the registrant on August 27, 2018)
4.48	Share Purchase Agreement by and between China Biologic Products Holdings, Inc. and CITIC Capital MB Investment Limited dated as of August 24, 2018 (incorporated by reference to Exhibit 99.2 of the Form 6-K furnished to the SEC by the registrant on August 27, 2018)
4.49	Share Purchase Agreement by and between China Biologic Products Holdings, Inc. and HH China Bio Holdings LLC dated as of August 24, 2018 (incorporated by reference to Exhibit 99.3 of the Form 6-K furnished to the SEC by the registrant on August 27, 2018)
4.50	Share Purchase Agreement by and between China Biologic Products Holdings, Inc. and PW Medtech Group Limited dated as of August 24, 2018 (incorporated by reference to Exhibit 99.4 of the Form 6-K furnished to the SEC by the registrant on August 27, 2018)
8.1*	Subsidiaries of the registrant
11.1*	Code of Ethics

12.1*	Certifications of Chief Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
12.2*	Certifications of Chief Financial Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
13.1**	Certification of Chief Executive Officer Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
13.2**	Certification of Chief Financial Officer Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
15.1*	Consent of independent registered public accounting firm
101*	Interactive data files pursuant to Rule 405 of Regulation S-T

*Filed herewith.

** Furnished herewith.

SIGNATURES

The registrant hereby certifies that it meets all of the requirements for filing its annual report on Form 20-F and that it has duly caused and authorized the undersigned to sign this annual report on its behalf.

CHINA BIOLOGIC PRODUCTS
HOLDINGS, INC.

Date: March 6, 2019 By: /s/ Bing Li
Name: Bing Li
Title: Chief Executive Officer

CHINA BIOLOGIC PRODUCTS HOLDINGS, INC. AND SUBSIDIARIES

CONTENTS

Report of Independent Registered Public Accounting Firm

To the Shareholders and Board of Directors
China Biologic Products Holdings, Inc.:

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of China Biologic Products Holdings, Inc. and subsidiaries (the "Company") as of December 31, 2018 and 2017, the related consolidated statements of comprehensive income, changes in equity and cash flows for each of the years in the three-year period ended December 31, 2018, and the related notes (collectively, the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2018, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) ("PCAOB"), the Company's internal control over financial reporting as of December 31, 2018, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission, and our report dated March 6, 2019 expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

Change in Accounting Principle

As discussed in Note 2 to the consolidated financial statements, the Company has changed its method of accounting for revenue recognition in 2018 due to the adoption of ASU No. 2014-09, *Revenue from Contracts with Customers* (Topic 606), as amended.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We are a public accounting firm

registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

We have served as the Company’s auditor since 2015.

/s/ KPMG Huazhen LLP

Beijing, China
March 6, 2019

CHINA BIOLOGIC PRODUCTS HOLDINGS, INC. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS

	Note	December 31, 2018 USD	December 31, 2017 USD
ASSETS			
Current Assets			
Cash and cash equivalents		338,880,559	219,336,848
Time deposits		537,478,040	22,895,200
Short term investments		76,048,594	-
Accounts receivable, net of allowance for doubtful accounts	4	125,115,842	77,267,275
Loan receivable - current	10	-	45,912,000
Inventories	6	243,295,512	209,570,835
Prepayments and other current assets, net of allowance for doubtful accounts	5	36,369,275	18,139,453
Total Current Assets		1,357,187,822	593,121,611
Property, plant and equipment, net	7	178,327,361	166,812,749
Intangible assets, net	8	53,258,871	536,338
Land use rights, net		32,204,342	24,853,163
Equity method investment		15,428,028	14,903,908
Prepayments for investments in equity securities	9	10,812,893	-
Loan receivable - non current	10	39,942,591	-
Goodwill	3	313,588,803	-
Other non-current assets		9,227,970	8,829,648
Total Assets		2,009,978,681	809,057,417
LIABILITIES AND SHAREHOLDERS' EQUITY			
Current Liabilities			
Accounts payable		11,404,642	7,548,909
Income tax payable	12	11,010,347	14,258,544
Other payables and accrued expenses	11	99,933,793	75,827,864
Total Current Liabilities		122,348,782	97,635,317
Deferred income		2,824,212	3,476,877
Non-current income tax payable	12	26,899,038	37,067,138
Other liabilities		13,203,485	6,553,088
Total Liabilities		165,275,517	144,732,420
Shareholders' Equity			
Ordinary share: par value $0.0001; 100,000,000 shares authorized; 41,616,320 and 29,866,545 shares issued at December 31, 2018 and 2017, respectively;			

39,361,616 and 27,611,841 shares outstanding at December 31, 2018 and 2017, respectively		4,162	2,987
Additional paid-in capital		1,189,698,494	140,230,395
Treasury share: 2,254,704 shares at December 31, 2018 and 2017, respectively, at cost		(56,425,094)	(56,425,094)
Retained earnings		634,482,738	506,426,436
Accumulated other comprehensive (losses)/income		(45,710,701)	7,957,304
Total equity attributable to China Biologic Products Holdings, Inc.		1,722,049,599	598,192,028
Noncontrolling interest		122,653,565	66,132,969
Total Shareholders' Equity		1,844,703,164	664,324,997
Commitments and contingencies	17	-	-
Total Liabilities and Shareholders' Equity		2,009,978,681	809,057,417

See accompanying notes to Consolidated Financial Statements.

CHINA BIOLOGIC PRODUCTS HOLDINGS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

	Note	For the Years Ended December 31, 2018 USD	December 31, 2017 USD	December 31, 2016 USD
Sales	16	466,877,569	370,406,840	341,169,426
Cost of sales		146,787,236	125,517,021	124,034,448
Gross profit		320,090,333	244,889,819	217,134,978
Operating expenses				
Selling expenses		95,575,830	34,843,935	11,679,242
General and administrative expenses		68,817,340	67,683,667	54,519,122
Research and development expenses		9,524,412	6,503,712	7,021,992
Income from operations		146,172,751	135,858,505	143,914,622
Other income (expenses)				
Equity in income of an equity method investee		2,368,995	3,509,071	2,519,201
Interest income		13,706,750	7,623,624	7,815,780
Interest expense		(338,136)	(583,432)	(254,471)
Loss from disposal of a subsidiary		-	-	(75,891)
Other income, net		4,092,935	-	-
Total other income, net		19,830,544	10,549,263	10,004,619
Income before income tax expense		166,003,295	146,407,768	153,919,241
Income tax expense	12	18,036,180	64,171,809	25,125,820
Net income		147,967,115	82,235,959	128,793,421
Less: Net income attributable to noncontrolling interest		19,910,813	14,292,924	24,014,114
Net income attributable to China Biologic Products Holdings, Inc.		128,056,302	67,943,035	104,779,307
Earnings per share of ordinary share:	18			
Basic		3.54	2.40	3.79
Diluted		3.53	2.38	3.74
Weighted average shares used in computation:	18			
Basic		35,304,294	27,361,561	26,848,445
Diluted		35,432,959	27,605,623	27,249,144
Net income		147,967,115	82,235,959	128,793,421

Other comprehensive (losses)/income:			
Foreign currency translation adjustment, net of nil income taxes	(60,783,829)	36,861,394	(31,303,262)
Comprehensive income	87,183,286	119,097,353	97,490,159
Less: Comprehensive income attributable to noncontrolling interest	12,794,989	17,876,743	19,026,592
Comprehensive income attributable to China Biologic Products Holdings, Inc.	74,388,297	101,220,610	78,463,567

See accompanying notes to Consolidated Financial Statements.

CHINA BIOLOGIC PRODUCTS HOLDINGS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

	Ordinary share		Additional			Accumulated other	Equity attributable to China	
	Number of Shares	Par value USD	paid-in capital USD	Treasury stock USD	Retained earnings USD	comprehensive income (loss) USD	Biologic Products Holdings, Inc. USD	Noncon interest USD
Balance as of January 1, 2016	28,835,053	2,884	105,079,845	(56,425,094)	333,704,094	(18,605)	382,343,124	84,618
Net income	-	-	-	-	104,779,307	-	104,779,307	24,014
Other comprehensive loss	-	-	-	-	-	(26,315,740)	(26,315,740)	(4,987,
Dividend declared to a noncontrolling interest shareholder	-	-	-	-	-	-	-	(10,90
Share-based compensation	-	-	24,405,511	-	-	-	24,405,511	-
Excess tax benefits from stock option exercises	-	-	2,299,316	-	-	-	2,299,316	314,51
Adjustments in noncontrolling interest resulting from capital injections	-	-	513,397	-	-	-	513,397	(513,39
Capital withdrawal by noncontrolling interest shareholders	-	-	(30,397,196)	-	-	1,014,074	(29,383,122)	(33,608
Ordinary share issued in connection with:								
- Exercise of stock options	337,406	34	3,558,762	-	-	-	3,558,796	-

- Vesting of restricted shares	255,150	25	(25)	-	-	-	-	-
Balance as of December 31, 2016	29,427,609	2,943	105,459,610	(56,425,094)	438,483,401	(25,320,271)	462,200,589	58,936
Net income	-	-	-	-	67,943,035	-	67,943,035	14,292
Other comprehensive income	-	-	-	-	-	33,277,575	33,277,575	3,583,8
Dividend declared to a noncontrolling interest shareholder	-	-	-	-	-	-	-	(10,680
Share-based compensation	-	-	33,903,283	-	-	-	33,903,283	-
Ordinary share issued in connection with:								
- Exercise of stock options	85,242	9	867,537	-	-	-	867,546	-
- Vesting of restricted shares	353,694	35	(35)	-	-	-	-	-
Balance as of December 31, 2017	29,866,545	2,987	140,230,395	(56,425,094)	506,426,436	7,957,304	598,192,028	66,132
Net income	-	-	-	-	128,056,302	-	128,056,302	19,910
Other comprehensive loss	-	-	-	-	-	(53,668,005)	(53,668,005)	(7,115,
Dividend declared to a noncontrolling interest shareholder	-	-	-	-	-	-	-	(10,143
Share-based compensation	-	-	23,130,570	-	-	-	23,130,570	-
Issuance of ordinary shares in private placement	5,850,000	585	590,264,415	-	-	-	590,265,000	-
Issuance of ordinary shares to PWM in exchange for 80% equity	5,521,000	552	434,888,618	-	-	-	434,889,170	53,871

interest of TianXinFu (Note 3)								
Ordinary share issued in connection with:								
- Exercise of stock options	121,945	12	1,184,522	-	-	-	1,184,534	-
- Vesting of restricted shares	256,830	26	(26)	-	-	-	-	-
Balance as of December 31, 2018	41,616,320	4,162	1,189,698,494	(56,425,094)	634,482,738	(45,710,701)	1,722,049,599	122,65

See accompanying notes to Consolidated Financial Statements.

CHINA BIOLOGIC PRODUCTS HOLDINGS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS

	For the Years Ended		
	December 31, 2018 USD	December 31, 2017 USD	December 31, 2016 USD
CASH FLOWS FROM OPERATING ACTIVITIES:			
Net income	147,967,115	82,235,959	128,793,421
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation	13,809,041	11,691,731	11,962,983
Amortization	9,416,310	1,216,959	775,053
Loss on disposal of property, plant and equipment	1,001,000	3,228,845	293,098
Allowance for doubtful accounts - accounts receivable, net	655,148	23,783	123,239
Allowance for doubtful accounts - prepayments and other receivables	96,267	-	65,341
Impairment for other non-current assets	2,671,528	-	1,225,200
Write-down of obsolete inventories	-	-	256,862
Deferred income tax benefit	(4,159,890)	(3,252,516)	(3,006,541)
Share-based compensation	23,130,570	33,903,283	24,405,511
Equity in income of an equity method investee	(2,368,995)	(3,509,071)	(2,519,201)
Loss from disposal of a subsidiary	-	-	75,891
Excess tax benefits from share-based compensation arrangements	-	-	(2,613,831)
Change in operating assets and liabilities, net of effect of acquisition of TianXinFu:			
Accounts receivable	(53,879,876)	(39,918,939)	(10,971,773)
Inventories	(42,594,485)	(42,078,261)	(40,077,384)
Prepayments and other current assets	(9,387,783)	(1,777,783)	1,946,800
Accounts payable	8,140,553	977,152	2,966,885
Income tax payable	(3,575,544)	6,047,808	6,022,145
Other payables and accrued expenses	23,693,979	16,821,694	4,221,669
Deferred income	(504,886)	(493,897)	(686,757)
Non-current income tax payable	(10,168,100)	37,067,138	-
Net cash provided by operating activities	103,941,952	102,183,885	123,258,611
CASH FLOWS FROM INVESTING ACTIVITIES:			
Cash acquired from acquisition of TianXinFu	97,702,278	-	-
Purchase of time deposit	(1,871,773,012)	(22,669,000)	-
Proceeds from maturity of time deposit	1,349,949,821	-	-
Purchase of short term investments	(855,074,467)	-	-
Proceeds from maturity of short term investments	767,654,706	-	-
Payment for property, plant and equipment	(31,743,146)	(37,504,440)	(49,371,318)
Payment for intangible assets and land use rights	(4,973,244)	(786,691)	(1,635,891)
Refund of payments and deposits related to land use right	-	-	10,297,893

Proceeds from disposal of property, plant and equipment and land use rights	124,560	64,914	393,019
Loans lent to a third party	-	-	(12,332,718)
Proceeds from disposal of a subsidiary	-	-	128,654
Prepayments for investments in equity securities	(10,812,893)	-	-
Net cash used in investing activities	(558,945,397)	(60,895,217)	(52,520,361)

See accompanying notes to Consolidated Financial Statements.

CHINA BIOLOGIC PRODUCTS HOLDINGS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS

	For the Years Ended		
	December 31, 2018 USD	December 31, 2017 USD	December 31, 2016 USD
CASH FLOWS FROM FINANCING ACTIVITIES:			
Proceeds from stock option exercised	1,184,534	867,546	3,558,796
Proceeds from short-term bank loans	-	23,009,280	-
Repayment of short-term bank loans	-	(23,412,060)	-
Maturity of deposit as security for bank loans	-	-	37,756,405
Excess tax benefits from share-based compensation arrangements	-	-	2,613,831
Dividend paid by subsidiaries to noncontrolling interest shareholders	(10,145,395)	(18,789,151)	(7,921,952)
Proceeds from issuance of ordinary shares	590,265,000	-	-
Prepayment to an investment bank for potential share repurchase	(10,000,000)	-	-
Payment to noncontrolling interest shareholders in connection with their capital withdrawal	-	-	(58,091,018)
Net cash provided by/ (used in) financing activities	571,304,139	(18,324,385)	(22,083,938)
EFFECT OF FOREIGN EXCHANGE RATE CHANGES ON CASH AND CASH EQUIVALENTS	3,243,017	12,607,032	(9,826,672)
NET INCREASE IN CASH AND CASH EQUIVALENTS	119,543,711	35,571,315	38,827,640
Cash and cash equivalents at beginning of year	219,336,848	183,765,533	144,937,893
Cash and cash equivalents at end of year	338,880,559	219,336,848	183,765,533
Supplemental cash flow information			
Cash paid for income taxes	35,449,581	24,691,429	22,210,476
Cash paid for interest expense	-	252,353	84,664
Noncash investing and financing activities:			
Acquisition of property, plant and equipment included in payables	3,687,742	7,548,964	4,912,937
Set-off loan receivable against accounts payable	3,784,297	-	5,848,400
Fair value of noncash assets acquired and liabilities assumed in acquisition of TianXinFu	337,186,892	-	-

See accompanying notes to Consolidated Financial Statements.

CHINA BIOLOGIC PRODUCTS HOLDINGS, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2018, 2017 AND 2016

NOTE 1 – DESCRIPTION OF BUSINESS AND SIGNIFICANT CONCENTRATIONS AND RISKS

China Biologic Products Holdings, Inc. (“CBP”) and its subsidiaries (collectively, the “Company”), are principally engaged in the research, development, manufacturing and sales of biopharmaceutical products in the People’s Republic of China (the “PRC”).

Biopharmaceutical products include plasma-based products and placenta polypeptide. All of the biopharmaceutical products are prescription medicines administered in the form of injections. The principal plasma products are human albumin and human immunoglobulin for intravenous injection (“IVIG”). The PRC subsidiaries own and operate plasma collection stations that purchase and collect plasma from individual donors. The plasma is processed into finished goods after passing through a series of fractionating processes.

On January 1, 2018, the Company acquired 80% equity interest in TianXinFu (Beijing) Medical Appliance Co., Ltd. (“TianXinFu”), a medical device company primarily engaging in manufacturing and sale of regenerative medical biomaterial products. Biomaterial products include artificial dura mater and spinal dura mater products, with extracted collagen as the main raw material, which are applied in brain and spinal surgeries.

All of the Company’s plasma products require government approval before the products are sold to customers. The Company primarily sells its products to hospitals and inoculation centers directly or through distributors in the PRC.

On July 21, 2017, China Biologic Products Holdings, Inc. (the “Successor”) succeeded to the interests of China Biologic Products, Inc. (the “Predecessor”) following a redomicile merger pursuant to an agreement and plan of merger dated as of April 28, 2017 (the “Merger Agreement”) between the Successor and the Predecessor. Pursuant to the Merger Agreement, the Predecessor merged with and into the Successor, with the Successor surviving the merger and each issued and outstanding shares of Predecessor's common stock converted into the right to receive one ordinary share of the Successor. The consolidated financial statements of the Successor represents the continuation of the financial statements of the Predecessor, reflecting the assets and liabilities, retained earnings and other equity balances of the Predecessor before the domiciliation. The equity structure is restated using the exchange ratio established in the Merger Agreement to reflect the number of shares of the Successor.

Cash Concentration

The Company maintains cash balances at financial institutions which, from time to time, may exceed Federal Deposit Insurance Corporation insured limits for its bank accounts located in the United States or may exceed Hong Kong Deposit Protection Board insured limits for its bank accounts located in Hong Kong or may exceed the insured limits for its bank accounts in China established by the People's Bank of China. Total cash at banks and deposits, including cash and equivalents, time deposits and short term investments as of December 31, 2018 and December 31, 2017 amounted to $951,336,787 and $241,761,593, respectively, of which $3,227,530 and $2,577,139 are insured, respectively. The Company has not experienced any losses in uninsured bank deposits and does not believe that it is exposed to any significant risks on cash held in bank accounts.

Sales Concentration

The Company's two major biopharmaceutical products are human albumin and IVIG. Human albumin accounted for 32.0%, 35.8% and 39.2% of the total sales for the years ended December 31, 2018, 2017 and 2016, respectively. IVIG accounted for 24.3%, 31.7% and 34.6% of the total sales for the years ended December 31, 2018, 2017 and 2016, respectively. The Company expects sales from these two products to represent a substantial portion of its sales in the future. If the market demands for human albumin and IVIG cannot be sustained in the future or the price of human albumin and IVIG decreases, the Company's operating results could be adversely affected.

Substantially all of the Company's customers are located in the PRC. There were no customers that individually comprised 10% or more of sales during the years ended December 31, 2018, 2017 and 2016. No individual customer represented 10% or more of accounts receivables as at December 31, 2018 and 2017. The Company performs ongoing credit evaluations of its customers' financial condition and, generally, requires no collateral from its customers.

Purchase Concentration

There was one supplier, namely, Xinjiang Deyuan Bioengineering Co., Ltd. ("Xinjiang Deyuan") (see Note 10), that comprised 10% or more of the total purchases during the years ended December 31, 2018, 2017 and 2016. No individual supplier represented 10% or more of accounts payables as at December 31, 2018. Chongqing Sanda Great Exploit Pharmaceutical Co, Ltd. represented more than 10% of accounts payables as at December 31, 2017.

NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Principles of Consolidation and Basis of Presentation

The accompanying consolidated financial statements of the Company have been prepared in accordance with generally accepted accounting principles in the United States of America ("GAAP"), and include the financial statements of the Company and its subsidiaries in which CBP, directly or indirectly, has a controlling financial interest. All intercompany balances and transactions have been eliminated upon consolidation.

Use of Estimates

The preparation of consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenue and expenses during the reporting period. Actual results could differ from those estimates. Significant items subject to such estimates and assumptions include the useful lives of property, plant and equipment and intangibles with definite lives, the collectability of accounts receivable and loan receivable, the fair value determinations of stock compensation awards and short term investments, identifiable assets acquired and liabilities assumed and noncontrolling interest in business combinations, the realizability of deferred income tax assets and inventories, the recoverability of intangible assets, land use rights, property, plant and equipment, goodwill and equity method investment, and accruals for income tax uncertainties and other contingencies. The current economic environment has increased the degree of uncertainty inherent in those estimates and assumptions.

Foreign Currency Translation

The accompanying consolidated financial statements of the Company are reported in US dollar. The financial position and results of operations of the Company's subsidiaries in the PRC are measured using the Renminbi, which is the local and functional currency of these entities. Assets and liabilities of the subsidiaries are translated at the prevailing exchange rate in effect at each period end. Revenues and expenses are translated at the average rate of exchange during the period. Translation adjustments are included in other comprehensive income/(losses).

Revenue Recognition

During the years ended December 31, 2017 and 2016, revenue was recognized when persuasive evidence of an arrangement existed, delivery of the product has occurred and the customer took ownership and assumed risk of loss, the sales price was fixed or determinable and collection of the relevant receivable was probable. For all sales, the Company required a signed contract or purchase order, which specified pricing, quantity and product specifications. Delivery of the product occurred when the customer received the product, which was when the risks and rewards of ownership have been transferred. Delivery was evidenced by signed customer acknowledgement. The Company's sales agreements did not provide the customer the right of return, unless the product was defective in which case the Company allowed for an exchange of product or return. For the periods presented, defective product returns were inconsequential. Revenue represents the invoiced amount of products sold, net of value added taxes (VAT).

Effective January 1, 2018, the Company adopted the new guidance of ASC Topic 606, *Revenue from Contracts with Customers* ("Topic 606"), which supersedes the revenue recognition requirements in ASC Topic 605, *Revenue Recognition*. Topic 606 requires the Company to recognize revenue upon transfer of control of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services.

The Company sells biopharmaceutical and biomaterial products to hospitals, inoculation centers and distributors. For all sales, the Company requires a signed contract or purchase order, which specifies pricing, quantity and product specifications.The Company recognizes revenue upon the satisfaction of its performance obligation, which is to transfer the control of the promised products to customers in an amount that reflects the consideration to which the Company expects to be entitled to in exchange for those products, excluding amounts collected on behalf of third parties (e.g. value-added taxes). The transfer of control of the products is satisfied at a point in time, which is the delivery of the products to customers' premises and evidenced by signed customer acknowledgement. The selling price, which is specified in the signed contracts or purchase orders, is fixed. The Company has unconditional right to receive full payment of the sales price, upon the delivery of the products to customers and the signing of the customer acknowledgement. Customers are required to pay under the customary payment terms, which is generally less than six months. Advances from customers (a contract liability) is recognized when the Company has an unconditional right to a payment before it transfer the products to customers, and are included in other payables and accrued expenses.

Fair Value Measurements

The Company utilizes valuation techniques that maximize the use of observable inputs and minimize the use of unobservable inputs to the extent possible. The Company determines fair value based on assumptions that market participants would use in pricing an asset or liability in the principal or most advantageous market. When considering market participant assumptions in fair value measurements, the following fair value hierarchy distinguishes between observable and unobservable inputs, which are categorized in one of the following levels:

- Level 1 Inputs: Unadjusted quoted prices for identical assets or liabilities in active markets accessible to the entity at the measurement date.

- Level 2 Inputs: Other than quoted prices included in Level 1, inputs that are observable for the asset or liability, either directly or indirectly, for substantially the full term of the asset or liability.

- Level 3 Inputs: Unobservable inputs for the asset or liability used to measure fair value to the extent that observable inputs are not available, thereby allowing for situations in which there is little, if any, market activity for the asset or liability at the measurement date.

The fair value measurement level of an asset or liability within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement.

See Note 15 to the Consolidated Financial Statements.

Cash and Cash Equivalents

Cash consists of cash on hand and demand deposits. The Company considers all highly liquid investments with original maturities of three-month or less at the time of purchase to be cash equivalents.

As of December 31, 2018 and 2017, the Company maintained cash and cash equivalents at banks in the following locations:

	December 31, 2018	December 31, 2017
	USD	USD
PRC, excluding Hong Kong	158,739,504	214,157,592
Hong Kong	3,936,815	-
U.S.	175,133,834	4,708,801
Total	337,810,153	218,866,393

Short term investments

The Company's short term investments represent bank financial products with original maturity of less than one year when purchased. The Company elects to apply the fair value option for the short term investments to more accurately reflect market and economic events in its earnings. Gains or losses from the short term investments is recorded in other income, net in the statements of comprehensive income.

Accounts Receivable and Allowance for Doubtful Accounts

Accounts receivable is recognized when the Company has an unconditional right to receive consideration. A right to receive consideration is unconditional if only the passage of time is required before payment of that consideration is due. Accounts receivable are recorded at the invoiced amount and do not bear interest. Amounts collected on trade accounts receivable are included in cash provided by operating activities in the consolidated statements of cash flows. The Company maintains an allowance for doubtful accounts for estimated losses inherent in its accounts receivable portfolio. In establishing the required allowance, management considers historical losses, the customers' financial condition, the amount of accounts receivables in dispute, the accounts receivables aging and the customers' payment patterns. The Company reviews its allowance for doubtful accounts monthly. Past due balances are reviewed individually for collectability. Account balances are charged off against the allowance after all means of collection have been exhausted and the potential for recovery is considered remote. The Company does not have any off-balance-sheet credit exposure related to its customers.

Inventories

Inventories are stated at the lower of cost or net realizable value. Cost is determined using the weighted average method. Cost of work-in-process and finished goods comprise direct materials, direct production costs and an allocation of production overheads based on normal operating capacity. Net realizable value is the estimated selling prices in the ordinary course of business, less reasonably predictable costs of completion, disposal, and transportation. Adjustments are recorded to write down the carrying amount of any obsolete and excess inventory to its estimated net realizable value based on historical and forecasted demand.

Property, Plant and Equipment

Property, plant and equipment are stated at cost.

Depreciation of property, plant and equipment attributable to manufacturing activities is capitalized as part of inventories, and recognized as cost of sales when the inventory is sold. Cost incurred in the construction of property, plant and equipment, including downpayments and progress payments, are initially capitalized as construction-in-progress and transferred into their respective asset categories when the assets are ready for their intended use, at which time depreciation commences.

Depreciation on property, plant and equipment is calculated on the straight-line method over the estimated useful lives of the assets. Estimated useful lives of the assets are as follows:

Buildings	20-45 years
Machinery and equipment	10 years
Furniture, fixtures, office equipment and vehicles	5-10 years

When items are retired or otherwise disposed of, income is charged or credited for the difference between net book value and the proceeds received thereon. Ordinary maintenance and repairs are charged to expense as incurred, and replacements and betterments are capitalized and amortized over the remaining useful life.

Business Combination

The Company accounts for its business combination using the acquisition method in accordance with ASC Topic 805 (“ASC 805”): *Business Combinations*. An acquirer is required to recognize the identifiable acquired assets, the liabilities assumed, and any noncontrolling interest in the acquiree at the acquisition date, measured at their fair values as of that date. The consideration transferred of an acquisition is measured as the aggregate of the fair values at the date of exchange of the assets given, liabilities incurred, and equity instruments issued as well as the contingent considerations and all contractual contingencies as of the acquisition date. The costs directly attributable to the acquisition are expensed as incurred. The excess of (i) the total purchase price and fair value of the noncontrolling interests over (ii) the fair value of the identifiable net assets of the acquiree, is recorded as goodwill.

Goodwill

Goodwill represents the excess of the aggregate purchase price over the fair value of identifiable assets acquired and liabilities assumed. Goodwill is not amortized, but is tested for impairment at the reporting unit level on at least an annual basis and more frequently when an event occurs or circumstances change that would more likely than not reduce the fair value of a reporting unit below its carrying amount. When performing an evaluation of goodwill impairment, the Company has elected the option to first assess qualitative factors, such as significant events and changes to expectations and activities that may have occurred since the last impairment evaluation, to determine if it is more likely than not that goodwill might be impaired. If as a result of the qualitative assessment, that it is more likely than not that the fair value of the reporting unit is less than its carrying amount, the quantitative fair value test is performed to determine if the fair value of the reporting unit exceeds its carrying value.

The Company has adopted Accounting Standards Update ("ASU") 2017-04, *Simplifying the Test for Goodwill Impairment*, for annual goodwill impairment tests from January 1, 2018. This guidance removes Step 2 of the goodwill impairment test, which required the estimation of an implied fair value of goodwill in the same manner as the calculation of goodwill upon a business combination.

No impairment of goodwill was recognized for any of the years presented.

Equity Method Investment

Investment in an investee in which the Company has the ability to exercise significant influence, but does not have a controlling interest is accounted for using the equity method. Significant influence is generally presumed to exist when the Company has an ownership interest in the voting stock between 20% and 50%, and other factors, such as representation on the board of directors and participation in policy-making processes, are considered in determining whether the equity method of accounting is appropriate. Under the equity method of accounting, the Company's share of the investee's results of operations is included in other income (expenses) in the Company's consolidated statements of comprehensive income. Deferred taxes are provided for the difference, if any, between the book and tax basis of the investment. The Company determines the difference between the carrying amount of the investee and the underlying equity in net assets which results in an excess basis in the investment. The excess basis is allocated to the underlying assets and equity method goodwill of the Company's investee. The excess basis allocated to the underlying assets is either amortized or depreciated over the applicable useful lives. The equity method goodwill, which is $1,192,320 and $1,252,387 at December 31, 2018 and 2017, respectively, is not amortized or tested for impairment; instead the equity method investment is tested for impairment whenever events or changes in circumstances indicate that the carrying value of the investment may not be recoverable. The Company recognizes a loss if it is determined that other than temporary decline in the value of the investment exists. The process of assessing and determining whether an impairment on a particular equity investment is other than temporary requires significant amount of judgment. To determine whether an impairment is other-than-temporary, management considers whether the Company has the ability and intent to hold the investment until recovery and whether evidence indicating the carrying value of the investment is recoverable outweighs evidence to the contrary. No impairment loss was recognized by the Company for the years ended December 31, 2018, 2017 and 2016.

The Company's equity method investment as of December 31, 2018 and 2017 represented 35% equity interest investment in Xi'an Huitian Blood Products Co., Ltd. ("Huitian"), which the Company acquired in October 2008.

Government Grants

Government grants are recognized when there is reasonable assurance that the Company will comply with the conditions attaching to them and the grants will be received. Grants that compensate research and development expenses are recognized as a reduction to the related research and development expenses. Grants that compensate the Company for the cost of property, plant and equipment and land use rights are recognized as deferred income and are recognized as a reduction of depreciation and amortization during the useful life of the asset.

For the years ended December 31, 2018, 2017 and 2016, the Company received government grants of RMB4,837,300 (approximately $704,795), RMB2,405,210 (approximately $368,093) and RMB5,056,361 (approximately $728,874), respectively, which have been recognized as a reduction of research and development expenses.

For the year ended December 31, 2012, the Company received government grants of RMB18,350,000 (approximately $2,989,215) related to the technical upgrade of the manufacturing facilities in Guizhou Taibang, which was recorded as deferred income. The grants amortized amounted to $277,801, $271,754 and $276,388 for the years ended December 31, 2018, 2017 and 2016, respectively.

For the year ended December 31, 2015, the Company received government grants of RMB15,000,000 (approximately $2,452,864) related to the new manufacturing facilities for factor products in Shandong Taibang, which was recorded as deferred income. These grants are amortized as the related assets are depreciated. The grants amortized amounted to $227,085, $222,143 and $410,369 for the year ended December 31, 2018, 2017 and 2016, respectively.

Intangible Assets

Intangible assets with finite useful life are amortized on a straight-line basis, as the pattern of economic benefit of intangible assets cannot be reliably determined, over the estimated useful lives of the respective assets. The Company's amortizable intangible assets consist of permits and license, customer relationships, technical know-how and others with the following estimated useful lives.

Permits and license	5-10 years
Customer relationships	7 years
Technical know-how	3-12 years
Others	5-10 years

The estimated useful life is the period over which the intangible asset is expected to contribute directly or indirectly to the future cash flows of the Company.

The in-process research and development assets acquired in a business combination are accounted for as an indefinite-lived intangible asset until completion or abandonment of the associated research and development activities.

Land Use Rights

Land use rights represent the exclusive right to occupy and use a piece of land in the PRC for a specified contractual term. Land use rights are carried at cost, less accumulated amortization. Amortization is calculated using the straight-line method over the contractual period of the rights ranging from 40 to 50 years.

Research and Development Expenses

Research and development costs are expensed as incurred. Research and development expenses for the years ended December 31, 2018, 2017 and 2016 were $9,524,412, $6,503,712 and $7,021,992, respectively. These expenses include the costs of the Company’s internal research and development activities.

Income Taxes

Income taxes are accounted for under the asset and liability method. Deferred income tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and tax loss and tax credit carryforwards. Deferred income tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred income tax assets and liabilities of a change in tax rates is recognized in the consolidated statements of comprehensive income in the period that includes the enactment date. A valuation allowance is provided to reduce the amount of deferred income tax assets if it is considered more likely than not that some portion or all of the deferred income tax assets will not be realized.

The Company recognizes the effect of income tax positions only if those positions are more likely than not of being sustained. Recognized income tax positions are measured at the largest amount that is greater than 50% likely of being realized. Changes in recognition or measurement are reflected in the period in which the change in judgment occurs. The Company records interest related to unrecognized tax benefits in interest expense and penalties in general and administrative expenses.

Employee Benefit Plans

Pursuant to relevant PRC regulations, the Company is required to make contributions to various defined contribution plans organized by municipal and provincial PRC governments. The contributions are made for each PRC employee at rates ranging from 25% to 43% on a standard salary base as determined by local social security bureau. Contributions to the defined contribution plans are charged to the consolidated statements of comprehensive income when the related service is provided. For the years ended December 31, 2018, 2017 and 2016, the costs of the Company's contributions to the defined contribution plans amounted to $5,581,682, $3,763,276, and $3,258,629, respectively.

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The Company has no other obligation for the payment of employee benefits associated with these plans beyond the contributions described above.

Share-based Payment

The Company measures the cost of employee services received in exchange for an award of equity instruments based on the grant-date fair value of the award and recognizes the cost over the period the employee is required to provide service in exchange for the award, which generally is the vesting period. For graded vesting awards, the Company recognizes compensation cost on a straight-line basis over the requisite service period for the entire award, provided that the cumulative amount of compensation cost recognized at any date at least equals the portion of the grant-date value of such award that is vested at that date.

Impairment of Long-lived Assets

Long-lived assets, including property, plant and equipment, land use rights and intangible assets subject to amortization, are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. If circumstances require a long-lived asset or asset group be tested for possible impairment, the Company first compares undiscounted cash flows expected to be generated by that asset or asset group to its carrying value. If the carrying value of the long-lived asset or asset group is not recoverable on an undiscounted cash flow basis, an impairment is recognized to the extent that the carrying value exceeds its fair value. Fair value is determined through various valuation techniques including discounted cash flow models, quoted market values and third-party independent appraisals, as considered necessary.

Earnings per Share

Basic earnings per ordinary share is computed by dividing net income attributable to ordinary shareholders by the weighted average number of ordinary share outstanding during the year using the two-class method. Under the two-class method, net income is allocated between ordinary share and other participating securities based on their participating rights in undistributed earnings. The Company’s nonvested shares were considered participating securities since the holders of these securities participate in dividends on the same basis as ordinary shareholders. Diluted earnings per share is calculated by dividing net income attributable to ordinary shareholders as adjusted for the effect of dilutive ordinary share equivalent, if any, by the weighted average number of ordinary share and dilutive ordinary share equivalent outstanding during the year. Potential dilutive securities are not included in the calculation of diluted earnings per share if the impact is anti-dilutive.

Segment Reporting

The Company uses the management approach in determining reportable operating segments. The management approach consider the internal reporting used by the chief operating decision maker for making operating decisions about the allocation of resources of the segment and the assessment of its performance in determining the Company's reportable operating segments. As a result of the business combination completed on January 1, 2018 as described in Note 3, the Company classified the reportable operating segments for the year ended December 31, 2018 into (i) biopharmaceutical products and (ii) biomaterial products. Biopharmaceutical products currently include plasma products and placenta polypeptide. The Company had one operating segment, biopharmaceutical products segment, which included plasma-based products and placenta polypeptide for the years of 2017 and 2016.

Substantially all of the Company's operations and customers are located in the PRC, and therefore, no geographic information is presented.

Contingencies

In the normal course of business, the Company is subject to loss contingencies, such as legal proceedings and claims arising out of its business, that cover a wide range of matters, including, among others, government investigations and tax matters. An accrual for a loss contingency is recognized when it is probable that a liability has been incurred and the amount of loss can be reasonably estimated. Disclosure will be made if an unfavorable outcome is determined to be reasonably possible but not probable, or if the amount of loss cannot be reasonably estimated. Legal costs incurred in connection with loss contingencies are expensed as incurred.

Recently Issued Accounting Standards

In May 2014, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2014-09, *Revenue from Contracts with Customers (Topic 606)* ("ASU 2014-09"), which amends the existing accounting standards for revenue recognition. ASU 2014-09 is based on principles that govern the recognition of revenue at an amount an entity expects to be entitled when products are transferred to customers. The original effective date for ASU 2014-09 would have required the Company to adopt beginning in its first quarter of 2017. In August 2015, the FASB issued ASU No. 2015-14, *Revenue from Contracts with Customers (Topic 606) – Deferral of the Effective Date*, which defers the effective date of ASU 2014-09 for one year and permits early adoption as early as the original effective date of ASU 2014-09. The new revenue standard may be applied retrospectively to each prior period presented ("full retrospective method) or retrospectively with the cumulative effect recognized as of the date of adoption ("modified retrospective method"). The Company applied the modified retrospective method to those contracts that are not completed contracts on January 1, 2018 upon adoption of ASU 2014-09. Results for reporting periods beginning after January 1, 2018 are presented under the new revenue recognition, while prior period amounts are not adjusted and continue to be reported in accordance with ASC 605. The adoption of new revenue standard did not impact retained earnings as of January 1, 2018. There are no changes between the reported results under Topic 606 and those have been reported under legacy US GAAP.

In July 2015, the FASB issued ASU No.2015-11, *Simplifying the Measurement of Inventory* ("ASU 2015-11"), which eliminated previous analysis of measurement of inventory and requires to measure most inventory at the lower of cost and net realizable value. Net realizable value is the estimated selling prices in the ordinary course of business, less reasonably predictable costs of completion, disposal, and transportation. ASU 2015-11 is effective prospectively for annual periods beginning after December 15, 2016, and interim periods therein. The Company adopted ASU 2015-11 on January 1, 2017 and concluded that no impact on its consolidated financial statements as a result of the new adoption of the guidance.

In February 2016, the FASB issued ASU No. 2016-02, *Leases (Topic 842)* ("ASU 2016-02"). In July 2018, the FASB issued ASU No. 2018-11, *Leases (Topic 842): Targeted Improvements* ("ASU 2018-11"). The guidance modified lease

accounting for both lessees and lessors to increase transparency and comparability by recognizing lease assets and lease liabilities by lessees for those leases classified as operating leases under previous accounting standards and disclosing key information about leasing arrangements. The guidance is effective for public companies for annual reporting periods, and interim periods within those years, beginning after December 15, 2018. Early adoption is permitted. The Company will adopt the guidance for financial statements periods beginning January 1, 2019 using the modified retrospective transition method and initially apply the transition provisions at January 1, 2019, which allows the Company to continue to apply the legacy guidance in ASC 840 for periods prior to 2019. This adoption approach will result in a balance sheet presentation that will not be comparable to the prior period in the first year of adoption. The adoption of this ASU will result in the recognition of right-of-use assets and lease liabilities for operating lease of approximately $2.0 million and $1.9 million, respectively.

In August 2016, the FASB issued ASU No. 2016-15, *Classification of Certain Cash Receipts and Cash Payments* (“ASU 2016-15”), which addressed and provided guidance for each of eight specific cash flow issues with the objective of reducing the existing diversity in practice. This standard will be effective for public companies for fiscal years beginning after December 15, 2017, and interim periods within those fiscal years. The Company has early adopted ASU 2016-15 on its consolidated financial statements since January 1, 2017 and there was no impact as a result of the adoption.

In October 2016, the FASB issued ASU No. 2016-16, *Income Taxes (Topic 740): Intra-Entity Transfers of Assets Other Than Inventory* ("ASU 2016-16"). This standard required that companies recognize the income tax consequences of an intra-entity transfer of an asset (other than inventory) when the transfer occurs. Current guidance prohibits companies from recognizing current and deferred income taxes for an intra-entity asset transfer until the asset has been sold to an outside party. This standard will be effective for public companies for annual periods beginning after December 15, 2017, including interim periods within that reporting period. The Company has adopted ASU 2016-16 on its consolidated financial statements in 2017 and there was no impact as a result of the adoption.

Effective January 1, 2017, on a retrospective basis, the Company adopted FASB ASU No. 2015-17, *Balance Sheet Classification of Deferred Taxes (Topic 740).* This update required that deferred income tax assets and liabilities be classified as noncurrent. As a result of adoption of this guidance, the Company reclassified current deferred income tax assets in the amount of $4,625,996, which had been included in prepayments and other current assets, to other noncurrent assets as of December 31, 2016. There was no impact on results of operations or cash flows as a result of the adoption of this guidance.

Effective January 1, 2017, the Company adopted FASB ASU No. 2016-09, *Improvements to Employee Share-Based Payment Accounting*. The standard simplified certain aspects of the accounting for share-based payment transactions, including recognition of excess tax benefits and deficiencies, classification of awards and classification in the statement of cash flows. As a result of adoption, the Company elected to adopt the change regarding income taxes on a prospective basis to recognize excess tax benefits and deficiencies from stock-based compensation as a discrete item in income tax expense, which were historically recorded as additional paid-in-capital. In addition, the Company elected to apply the change regarding classification in the statement of cash flows prospectively to record excess tax benefits from stock-based compensation from cash flows from financing activities to cash flows from operating activities. Excess tax benefits for the year ended December 31, 2017 was $621,381 and the adoption of this standard had no material impact on the Company's financial statements.

In January 2017, the FASB issued ASU No. 2017-01, *Clarifying the Definition of a Business* ("ASU 2017-01"), which changes the definition of a business to assist entities with evaluating when a set of transferred assets and activities is a business. If substantially all of the fair value is concentrated in a single asset or a group of similar assets, the acquired set is not a business. If this is not met, the entity then evaluates whether the set meets the requirement that a business include, at a minimum, an input and a substantive process that together significantly contribute to the ability to create outputs. Determining whether a set constitutes a business is critical because the accounting for a business combination differs significantly from that of an asset acquisition. ASU 2017-01 is effective for fiscal years beginning after December 15, 2017, and interim periods within those years. ASU 2017-01 will be applied prospectively to any transactions occurring within the period of adoption. Early adoption is permitted, including for interim or annual periods in which the financial statements have not been issued or made available for issuance. The Company has adopted ASU 2017-01 from January 1, 2018 for the acquisition of TianXinFu. (see Note 3).

In January 2017, the FASB issued ASU No. 2017-04, *Intangibles—Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment* ("ASU 2017-04"). ASU 2017-04 simplifies the subsequent measurement of goodwill by eliminating Step 2 of the goodwill impairment test. In computing the implied fair value of goodwill under Step 2, an entity had to perform procedures to determine the fair value at the impairment testing date of its assets and liabilities (including unrecognized assets and liabilities) following the procedure that would be required in determining the fair value of assets acquired and liabilities assumed in a business combination. As a result of ASU 2017-04, an entity should perform its goodwill impairment test by comparing the fair value of a reporting unit with its carrying amount and then recognize an impairment charge, as necessary, for the amount by which the carrying amount exceeds the reporting unit's fair value, not to exceed the total amount of goodwill allocated to that reporting unit. ASU 2017-04 is effective for fiscal years and interim periods within those years beginning after December 15, 2019, and early adoption is permitted for interim or annual goodwill impairment tests performed after January 1, 2017. The Company has early adopted ASU 2017-04 from January 1, 2018.

In August 2018, the FASB issued ASU No. 2018-13, *Fair Value Measurement (Topic 820): Disclosure Framework-Changes to the Disclosure Requirements for Fair Value Measurement (ASU 2018-13)* ("ASU 2018-13"). ASU 2018-13 modifies certain disclosure requirements on fair value measurements, including (i) clarifying narrative disclosure regarding measurement uncertainty from the use of unobservable inputs, if those inputs reasonably could have been different as of the reporting date, (ii) adding certain quantitative disclosures, including (a) changes in unrealized gains and losses for the period included in other comprehensive income for recurring Level 3 fair value measurements held at the end of the reporting period and (b) the range and weighted average of significant unobservable inputs used to develop Level 3 fair value measurements, and (iii) removing certain fair value measurement disclosure requirements, including (a) the amount of and reasons for transfers between Level 1 and Level 2 of the fair value hierarchy, (b) the policy for timing of transfers between levels of the fair value hierarchy and (c) the valuation processes for Level 3 fair value measurements. The amendments in ASU 2018-13 are effective for all entities for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2019. The Company is permitted to early adopt any removed or modified disclosures and delay adoption of the additional disclosures until their effective date. The Company is currently evaluating the effect of the disclosure requirements of ASU 2018-13 will have on its consolidated financial statements and does not expect the impact to have a material effect.

NOTE 3 – BUSINESS COMBINATION

On October 12, 2017, the Company entered into a definitive agreement with PW Medtech Group Limited ("PWM"), a company listed on the Stock Exchange of Hong Kong Limited, to acquire 80% equity interest of TianXinFu (Beijing) Medical Appliance Co., Ltd. ("TianXinFu") in exchange for 5,521,000 ordinary shares of CBP. TianXinFu is a medical device company primarily engaging in the manufacturing and sale of regenerative medical biomaterial products, of which 80% equity interest was owned by PWM and 20% by a third party before this acquisition.

The Company completed the acquisition on January 1, 2018.

The transaction was accounted for under the acquisition method of accounting in accordance with ASC Topic 805, *Business Combinations*. The results of TianXinFu's operations have been included in the Company's consolidated financial statements since January 2, 2018. For the year ended December 31, 2018, total sales and net income for TianXinFu which have been included in the Company's consolidated financial statements were $44.7 million and $16.4 million, respectively.

The following table presents the amounts recognized for assets acquired and liabilities assumed for TianXinFu as of the acquisition date. The noncontrolling interest represents the fair value of the 20% equity interest not held by the Company:

	As of January 01, 2018 USD
Cash and cash equivalents	97,702,278
Accounts receivable	312,832
Inventories	2,745,771
Other current assets	283,824
Property, plant and equipment	6,522,447
Land use rights	4,135,141
Intangible assets	63,725,856
Deferred income tax assets	480,334
Current liabilities	(6,129,418)
Deferred income tax liabilities	(10,382,902)
Fair value of noncontrolling interest	(53,871,002)
Goodwill	329,364,009
Total purchase consideration	434,889,170

The intangible assets consist of customer relationship, technical know-how and in-process research and development assets. The fair values of the customer relationship of $54,956,664 and technical know-how of $7,514,256 are amortized over 7 years and 3-12 years, respectively on a straight line basis. The fair value of in-process research and development assets of $1,254,937 are indefinite-lived until the completion or abandonment of the associated research and development activities.

The estimated fair value of the noncontrolling interest in TianXinFu was determined by an independent valuer by using discount cash flow model.

The goodwill resulting from the business combination primarily attributed to the synergies and economic scale anticipated to be achieved from combining the operations of the Company and TianXinFu, and the assigned assembled workforce. None of the goodwill is expected to be deductible for income tax purpose.

As of the acquisition date, the goodwill acquired in the business combination was assigned to the biomaterial products segment of $182 million and to the biopharmaceutical products segment of $147 million. The exchange difference during the period for goodwill is $15,775,206.

Unaudited Pro Forma Financial Information

The following unaudited pro forma consolidated financial information for the year ended December 31, 2017 are presented as if the acquisition had been consummated on January 1, 2017 after giving effect to purchase accounting adjustments. These pro forma results have been prepared for comparative purpose only and do not purport to be indicative of what operating results would have been had the acquisition actually taken place on the date indicated and may not be indicative of future operating results.

Unaudited pro forma consolidated statements of comprehensive income for the year ended December 31, 2017:

	December 31, 2017 USD
Sales	412,248,989
Net income	100,749,486

NOTE 4 – ACCOUNTS RECEIVABLE

Accounts receivable at December 31, 2018 and 2017 consisted of the following:

	December 31, 2018 USD	December 31, 2017 USD
Accounts receivable	126,352,173	77,858,266
Less: Allowance for doubtful accounts	(1,236,331)	(590,991)
Total	125,115,842	77,267,275

The activity in the allowance for doubtful accounts – accounts receivable for the years ended December 31, 2018, 2017 and 2016 are as follows:

	For the Years Ended December 31, 2018	December 31, 2017	December 31, 2016
	USD	USD	USD
Beginning balance	590,991	533,596	443,624
Provisions	655,148	23,783	123,239
Foreign currency translation adjustment	(9,808)	33,612	(33,267)
Ending balance	1,236,331	590,991	533,596

NOTE 5 – PREPAYMENTS AND OTHER CURRENT ASSETS

Prepayments and other current assets as of December 31, 2018 mainly represented other receivables of $15,897,405, prepayment to an investment bank for a share repurchase program of $10,000,000 and other prepayments of $9,081,680. On November 1, 2018, the Company announced a share repurchase program, which was approved by the Board of Directors on October 30, 2018. Under the share repurchase program, CBP may repurchase up to US$100 million worth of shares over 6 months following the date of approval.

Prepayments and other current assets as of December 31, 2017 mainly represented other receivables of $10,412,739 and prepayments of $4,886,604.

The activity in the allowance for doubtful accounts –prepayments and other receivables for the years ended December 31, 2018, 2017 and 2016 are as follows:

	For the Years Ended December 31, 2018	December 31, 2017	December 31, 2016
	USD	USD	USD
Beginning balance	4,960,020	4,671,896	4,924,063
Provisions	96,267	-	65,341
Foreign currency translation adjustment	(273,194)	288,124	(317,508)
Ending balance	4,783,093	4,960,020	4,671,896

NOTE 6 – INVENTORIES

Inventories at December 31, 2018 and 2017 consisted of the following:

	December 31, 2018	December 31, 2017
	USD	USD
Raw materials	124,408,741	107,651,325
Work-in-process	57,457,153	42,202,306
Finished goods	61,429,618	59,717,204
Total	243,295,512	209,570,835

Raw materials mainly comprised of human plasma collected from the Company’s plasma collection stations. Work-in-process represented intermediate products in the process of production. Finished goods mainly comprised of plasma products. Provisions to write-down the carrying amount of obsolete inventory to its estimated net realizable value amounted to nil, nil and $256,862 for the years ended December 31, 2018, 2017 and 2016, respectively, and were recorded as cost of sales in the consolidated statements of comprehensive income.

NOTE 7 – PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment at December 31, 2018 and 2017 consisted of the following:

	December 31, 2018 USD	December 31, 2017 USD
Buildings	86,923,161	41,669,081
Machinery and equipment	111,797,936	41,102,242
Furniture, fixtures, office equipment and vehicles	11,670,963	9,980,062
Construction in progress	7,713,523	105,226,787
Total property, plant and equipment, gross	218,105,583	197,978,172
Accumulated depreciation	(42,447,406)	(33,862,836)
Impairment of property, plant and equipment	(2,060,844)	-
Total property, plant and equipment, net	173,597,333	164,115,336
Prepayment for property, plant and equipment	4,730,028	2,697,413
Property, plant and equipment, net	178,327,361	166,812,749

As a result of the planned commencement of operation of the new facility, the Company disposed certain machinery and equipment in the old facility of Shandong Taibang and incurred a disposal loss of $1,001,000 and $3,228,845 for the years ended December 31, 2018 and 2017. Loss on disposal of property, plant and equipment for the year ended December 31, 2016 was $293,098.

Depreciation expense for the years ended December 31, 2018, 2017 and 2016 was $13,809,041, $11,691,731 and $11,962,983, respectively. No interest expenses were capitalized into construction in progress for the years ended December 31, 2018, 2017 and 2016.

NOTE 8 – INTANGIBLE ASSETS

Intangible assets at December 31, 2018 and 2017 consisted of the following:

	December 31, 2018 USD	December 31, 2017 USD
Permits and license	4,579,081	4,809,764
Customer relationship	52,320,870	-

Technical know-how	7,153,870	-
In-process research and development assets	1,194,740	-
Others	1,041,652	542,997
Total intangible assets	66,290,213	5,352,761
Accumulated amortization	(13,031,342)	(4,816,423)
Total intangible assets, net	53,258,871	536,338

Amortization expense for the years ended December 31, 2018, 2017 and 2016 was $8,742,607, $497,344 and $570,288, respectively.

The estimated annual amortization expense for intangible assets in each of the next five years is as follows:

For the Years Ended December 31,	Amount USD
2019	8,115,855
2020	8,108,251
2021	8,107,674
2022	8,103,936
2023	8,040,120
Total	40,475,836

NOTE 9 – RELATED PARTY TRANSACTIONS

Private Placement

On August 24, 2018, the Company entered into (i) a share purchase agreement with Beachhead Holdings Limited ("Centurium") and Double Double Holdings Limited ("DD"), which are affiliated with two directors of the Company, Mr. David Hui Li and Mr. Joseph Chow (ii) a share purchase agreement with PWM, the largest shareholder of the Company with a director representative, Ms. Yue'e Zhang (iii) share purchase agreements with two third party investors, for the issuance and sale of 3,050,000, 800,000 and 2,000,000 ordinary shares of CBP at a per share purchase price of $100.9, respectively, to raise aggregate gross proceeds of approximately $590 million. The transaction was approved by a special committee formed by the board of directors of the Company, consisting of two independent directors. On the same date, CBP issued 1,800,000 ordinary shares to Centurium and 2,000,000 ordinary shares to two third party investors, pursuant to their respective share purchase agreements. On September 4, 2018, DD assigned its rights and obligations under the share purchase agreement to Centurium and CBP issued 1,250,000 additional ordinary shares to Centurium thereafter. On September 21, 2018, CBP issued 800,000 ordinary shares to PWM.

Prepayments for Investments in Equity Securities

On November 28, 2018, the Company entered into a share transfer agreement with Smart Step Investments Limited ("Smart Step"), the then largest shareholder of Beijing Taijie Weiye Technology Co., Ltd. ("TJWY Medical"), pursuant to which the Company purchased approximately 11.55% equity interests of TJWY Medical from Smart Step in a cash consideration of $10,812,893. Pursuant to the share transfer agreement, the Company has the right to request Smart Step to redeem full or part of the equity interests in TJWY transferred at the original purchase price plus 6% compound interest rate per annum. Such right can be exercised by the Company within 6 months from the third anniversary of the closing date of the transaction.

The Company paid the 100% cash consideration on December 21, 2018. The transaction was completed on January 23, 2019.

TJWY Medical is a manufacturer of interventional products. The ultimate beneficial owner of Smart Step is the mother of Ms. Yue'e Zhang, a director of the Company.

NOTE 10 – LOAN RECEIVABLE

In August 2015, the Company entered into a cooperation agreement with Xinjiang Deyuan and the controlling shareholder of Xinjiang Deyuan ("Deyuan Shareholder"). Pursuant to the agreement, (i) Xinjiang Deyuan agreed to sell to Guizhou Taibang no less than 500 tonnes of source plasma in batches over the next three years, before July 31, 2018, and (ii) Guizhou Taibang agreed to provide Xinjiang Deyuan with an interest-bearing loan at an interest rate of 6% per annum with an aggregate principal amount of RMB300,000,000 (approximately $43,710,000). The loan was due July 31, 2018 and secured by a pledge of Deyuan Shareholder's 58.02% equity interest in Xinjiang Deyuan.

In August 2018, the Company extended this cooperation agreement with Xinjiang Deyuan and Deyuan Shareholder for another 3 years to purchase at least an additional 500 tonnes of source plasma and to extend the due date of the loan to July 31, 2021.The loan is secured by a pledge of Deyuan Shareholder's 58.02% equity interest in Xinjiang Deyuan. $3,784,297 of the loan principal was set off against the equivalent amount in accounts payable for purchase of plasma from Xinjiang Deyuan for the year ended December 31, 2018.

Interest income of $2,904,886, $2,514,936 and $2,661,700 were recognized and $695,757, $2,514,936 and $1,985,767 were received in cash by Guizhou Taibang and $2,062,426,nil and $675,933 were set off against the equivalent amounts in accounts payable for the purchase of plasma from Xinjiang Deyuan for the year ended December 31, 2018, 2017 and 2016, respectively.

NOTE 11 – OTHER PAYABLES AND ACCRUED EXPENSES

Other payables and accrued expenses at December 31, 2018 and 2017 consisted of the following:

	December 31, 2018 USD	December 31, 2017 USD
Payables to a potential investor [(1)]	8,574,254	8,679,073
Payable to Guizhou Eakan Investing Corp. [(2)]	2,121,392	2,228,262
Salaries and bonuses payable	23,543,535	19,770,025
Accruals for sales promotion fee	29,401,827	19,346,659
Payables for construction work	8,181,773	9,135,810
Other tax payables	1,456,184	2,891,714
Advance from customers[(3)]	9,101,834	2,425,975
Deposits received	7,463,172	4,434,443
Others	10,089,822	6,915,903
Total	99,933,793	75,827,864

(1) The payables to a potential investor comprises deposits received from a potential investor in the amount of $4,977,112 and $5,227,846 as of December 31, 2018 and 2017, respectively, and related interest plus penalty on these deposits totaling $3,597,142 and $3,451,227 as of December 31, 2018 and 2017, respectively.

(2) Guizhou Taibang has payables to Guizhou Eakan Investing Corp., amounting to approximately $2,121,392 and $2,228,262 as of December 31, 2018 and 2017, respectively. The Company borrowed this interest free advance for working capital purpose for Guizhou Taibang. The balance is due on demand. See Note 17.

(3) The change in advance from customers primarily represents the cash received, less amounts recognized as sales during the year.

NOTE 12 – INCOME TAX

The Company and each of its subsidiaries file separate income tax returns.

The United States of America

China Biologic Products Inc. was originally incorporated on December 20, 1989 under the laws of the State of Texas as Shepherd Food Equipment, Inc. On November 20, 2000, Shepherd Food Equipment, Inc. changed its corporate name to Shepherd Food Equipment, Inc. Acquisition Corp., or Shepherd. Shepherd is the survivor of a May 28, 2003 merger between Shepherd and GRC Holdings, Inc., or GRC, a Texas corporation. In the merger, the surviving corporation adopted the articles of incorporation and bylaws of GRC and changed its corporate name to GRC Holdings, Inc. On January 10, 2007, a plan of conversion became effective pursuant to which GRC was converted into a Delaware corporation and changed its name to China Biologic Products, Inc.

With the completion of domiciliation to the Cayman Islands on July 21, 2017, China Biologic Products Inc. was merged with and into China Biologic Products Holdings, Inc., with China Biologic Products Holdings, Inc. as the surviving company.

China Biologic Products Holdings, Inc. continued to be a U.S. corporation for U.S. federal income tax purposes and is subject to U.S. federal corporate income tax at gradual rates of up to 35% for year 2017.

On December 22, 2017, the Tax Cuts and Jobs Act (the "Tax Act") was enacted. The Tax Act has made significant changes to the U.S. Internal Revenue Code, including the taxation of U.S. corporations, by, among other things, limiting interest deductions, reducing the U.S. corporate income tax rate, disallowing certain deductions that had previously been allowed, altering the expensing of capital expenditures, adopting elements of a territorial tax system, assessing a repatriation tax or "toll-charge" on undistributed earnings and profits of U.S.-owned foreign corporations, and introducing certain anti-base erosion provisions. In 2017, the Company recorded a charge of approximately $40.3 million as a provisional amount for the repatriation tax on deemed repatriation to the United States of accumulated earnings. The charge for deemed repatriation will be payable by the Company over an eight-year period commencing April 2018. In the second quarter of 2018, $3,250,000 repatriation tax was paid by the Company to the U.S. tax bureau.

In August 2018, based on additional implementation guidance issued by the U.S. Treasury Department and the Internal Revenue Service, the Company adjusted the provisional amount by reversing income tax payable and income tax expense of $7.5 million. The accounting for the income tax effect of the Act has been completed.

Cayman Islands

Under the current laws of Cayman Islands, China Biologic Products Holdings, Inc. is not subject to tax on its income or capital gains.

British Virgin Islands

Taibang Biological is incorporated in the British Virgin Islands. Under the current laws of the British Virgin Islands (BVI), Taibang Biological is not subject to tax on income or capital gains. In addition, upon payments of dividends by Taibang Biological, no British Virgin Islands withholding tax is imposed.

Hong Kong

Taibang Holdings (Hong Kong) Limited ("Taibang Holdings", formerly known as "Logic Holdings (Hong Kong) Limited") is incorporated in Hong Kong and is subject to Hong Kong's profits tax rate of 16.5% for the years ended December 31, 2018, 2017 and 2016. Taibang Holdings did not earn any income that was derived in Hong Kong for the years ended December 31, 2018, 2017 and 2016.

Health Forward Holdings Limited ("Health Forward") is incorporated in Hong Kong and is subject to Hong Kong's profits tax rate of 16.5% for the year ended December 31, 2018. Health Forward did not earn any income that was derived in Hong Kong for the year ended December 31, 2018.

The payments of dividends by Hong Kong companies are not subject to any Hong Kong withholding tax.

PRC

The PRC's statutory income tax rate is 25%. The Company's PRC subsidiaries are subject to income tax at 25% unless otherwise specified.

In October 2014, Shandong Taibang obtained a notice from the Shandong provincial government that granted it the High and New Technology Enterprise certificate. This certificate entitled Shandong Taibang to enjoy a preferential income tax rate of 15% for a period of three years from 2014 to 2016. In December 2017, Shandong Taibang renewed its high and new technology enterprise qualification, which entitled it to enjoy a preferential income tax rate of 15% for a period of three years from 2017 to 2019.

According to CaiShui [2011] No. 58 dated July 27, 2011, Guizhou Taibang, being a qualified enterprise located in the western region of the PRC, enjoys a preferential income tax rate of 15% effective retroactively from January 1, 2011 to December 31, 2020.

TianXinFu was recognized by Beijing provincial government as a high and new technology enterprise in 2009 and the latest renewal of its qualification was obtained in 2018, which entitled TianXinFu to enjoy a preferential income tax rate of 15% for a period of three years from 2018 to 2020.

The components of earnings (losses) before income tax expense by jurisdictions are as follows:

	For the Years Ended		
	December 31, 2018	December 31, 2017	December 31, 2016
	USD	**USD**	**USD**
PRC, excluding Hong Kong	175,225,854	171,787,763	170,830,607
U.S.	(11,303,223)	(28,866,395)	(19,408,283)
BVI	2,341,136	3,488,680	2,498,629
Hong Kong	(260,472)	(2,280)	(1,712)
Total	166,003,295	146,407,768	153,919,241

Income tax expense for the years ended December 31, 2018, 2017 and 2016 represents current income tax expense and deferred income tax (benefit)/expense:

	For the Years Ended		
	December 31, 2018	December 31, 2017	December 31, 2016
	USD	**USD**	**USD**
Current income tax expense-PRC	29,715,744	27,133,958	28,132,361
Current income tax expense-US	(7,519,674)	40,290,367	-
Deferred income tax benefit-PRC	(4,657,379)	(3,252,516)	(3,006,541)
Deferred income tax expense-US	497,489	-	-
Total income tax expense	18,036,180	64,171,809	25,125,820

The effective income tax rate based on income tax expense and earnings before income taxes reported in the consolidated statements of comprehensive income differs from the PRC statutory income tax rate of 25% due to the following:

	For the Years Ended December 31, 2018	December 31, 2017	December 31, 2016
	(in percentage to earnings before income tax expense)		
PRC statutory income tax rate	25.0%	25.0 %	25.0 %
Non-deductible expenses:			
Share-based compensation	1.4 %	3.7 %	-
Others	0.9 %	1.1 %	1.6 %
Tax rate differential	(0.5)%	(0.9)%	(3.6)%
Effect of PRC preferential tax rate	(9.0)%	(11.1)%	(10.9)%
Bonus deduction on research and development expenses	(2.3)%	(1.5)%	(1.5)%
Change in valuation allowance	0.4 %	(0.6)%	5.3 %
Repatriation tax	(4.5)%	29.4 %	-
Tax effect of equity method investment	0.3 %	(0.6)%	0.4 %
Excess tax benefits from stock option exercises	(0.8)%	(0.7)%	-
Effective income tax rate	10.9%	43.8 %	16.3 %

The PRC tax rate has been used because the majority of the Company's consolidated pre-tax earnings arise in the PRC.

As of December 31, 2018 and 2017, significant temporary differences between the tax basis and financial statement basis of assets and liabilities that gave rise to deferred taxes were principally related to the following:

	December 31, 2018 USD	December 31, 2017 USD
Deferred income tax assets arising from:		
-Accrued expenses	7,587,118	6,558,359
-Deferred income	213,086	258,255
-Property, Plant and Equipment	1,149,033	1,210,006
-Other non-current assets	158,607	146,918
-Tax loss carryforwards	4,300,813	5,031,657
Gross deferred income tax assets	13,408,657	13,205,195
Less: valuation allowance	(4,300,813)	(5,031,657)
Net deferred income tax assets	9,107,844	8,173,538
Deferred income tax liabilities arising from:		
- Property, plant and equipment	(129,636)	-
- Intangible assets	(7,947,786)	(148,467)
- Land use rights	(552,602)	-
- Equity method investment	(497,489)	-

- Dividend withholding tax	(3,774,778)	(6,085,290)
Deferred income tax liabilities	(12,902,291)	(6,233,757)
Classification on consolidated balance sheets:		
Deferred income tax assets, included in other non-current assets	9,107,844	8,173,538
Deferred income tax liabilities, included in other liabilities	(12,902,291)	(6,233,757)

In assessing the realizability of deferred income tax assets, management considers whether it is more likely than not that some portion or all of the deferred income tax assets will not be realized. The ultimate realization of deferred income tax assets is dependent upon the generation of future taxable income during the periods in which those temporary differences become deductible and tax loss carryforwards are utilized. Management considers the scheduled reversal of deferred income tax liabilities (including the impact of available carryforwards periods), projected future taxable income, and tax planning strategies in making this assessment.

The deferred income tax assets of $4,300,813 for tax loss carry forwards as of December 31, 2018 represented tax loss carryforwards of certain PRC subsidiaries. For PRC income tax purposes, these PRC subsidiaries had tax loss carryforwards of $18,526,347, of which $4,806,145, $4,204,366, $4,644,148, $728,172 and $4,143,516 would expire by 2019, 2020, 2021, 2022 and 2023, respectively, if unused. In view of their cumulative losses positions, management determined it is more likely than not that deferred income tax assets of these PRC subsidiaries will not be realized, and therefore full valuation allowances of $4,300,813 and $5,031,657 were provided as of December 31, 2018 and 2017, respectively.

For United States federal income tax purposes, CBP had nil tax loss carry forwards as of December 31, 2018 and 2017. All tax loss brought forwards of CBP has been utilized by December 31, 2017 as a result of the repatriation tax on deemed repatriation of accumulated earnings to the United States.

The following table presents the movement of the valuation allowance for deferred income tax assets for the years ended December 31, 2018, 2017 and 2016:

	For the Years Ended December 31, 2018	December 31, 2017	December 31, 2016
	USD	USD	USD
Beginning balance	5,031,657	26,629,179	8,160,611
Addition (deduction) during the year	(507,897)	(21,927,117)	18,676,456
Foreign currency translation adjustment	(222,947)	329,595	(207,888)
Ending balance	4,300,813	5,031,657	26,629,179

According to the prevailing PRC income tax law and relevant regulations, dividends relating to earnings accumulated beginning on January 1, 2008 that are received by non-PRC-resident enterprises from PRC-resident enterprises are subject to withholding tax at 10%, unless reduced by tax treaties or similar arrangement. Dividends relating to undistributed earnings generated prior to January 1, 2008 are exempt from such withholding tax. Further, dividends received by the Company from its overseas subsidiaries are subject to the U.S. federal income tax less any qualified foreign tax credits. Based on the dividend policy the Company has provided the deferred income tax liabilities of $7,351,023 on undistributed earnings of $74 million, approximately 50% of Shandong Taibang's total undistributed earnings at December 31, 2014. During the years ended December 31, 2018, 2017 and 2016, the deferred income tax liabilities of $2,310,512, nil and $1,265,733 were paid following a sum of RMB148,760,000 (approximately $21,674,332), nil and RMB82,760,000 (approximately $11,929,854) dividend distribution to Taibang Holdings (Hong Kong) Limited by Taibang Biotech (Shandong) Co., Ltd. in 2018, 2017 and 2016, respectively, which was generated from distributed earnings of Shandong Taibang. Due to the Company's plan and intention of reinvesting its earnings in its PRC business, the Company has not provided for the related deferred income tax liabilities on the remaining undistributed earnings of the PRC subsidiaries totaling $613.6 million as of December 31, 2018.

As of January 1, 2016 and for each of the years ended December 31, 2018, 2017 and 2016, the Company and its subsidiaries did not have any unrecognized tax benefits, and therefore no interest or penalties related to unrecognized tax benefits were accrued. The Company does not expect that the amount of unrecognized tax benefits will change significantly within the next 12 months.

The Company and each of its PRC subsidiaries file income tax returns in the United States and the PRC, respectively. The Company is subject to U.S. federal income tax examination by tax authorities for tax years beginning in 2007. According to the PRC Tax Administration and Collection Law, the statute of limitations is three years if the underpayment of taxes is due to computational errors made by the taxpayer or the withholding agent. The statute of limitations is extended to five years under special circumstances where the underpayment of taxes is more than RMB100,000 (approximately $14,570). In the case of transfer pricing issues, the statute of limitations is ten years. There is no statute of limitations in the case of tax evasion. The PRC tax returns for the Company’s PRC subsidiaries are open to examination by the PRC tax authorities for the tax years beginning in 2012.

NOTE 13 – OPTIONS AND NONVESTED SHARES

Options

Effective May 9, 2008, the Board of Directors adopted the China Biologic 2008 Equity Incentive Plan, ("the 2008 Plan"). The 2008 Plan provides for grants of stock options, stock appreciation rights, performance units, restricted stock, restricted stock units and performance shares. A total of five million shares of the Company's ordinary share may be issued pursuant to the 2008 Plan. The exercise price per share for the shares to be issued pursuant to an exercise of a stock option will be no less than the fair market value per share on the grant date, except that, in the case of an incentive stock option granted to a person who holds more than 10% of the total combined voting power of all classes of the Company's stock or any of its subsidiaries, the exercise price will be no less than 110% of the fair market value per share on the grant date. All the options to be granted will have 10-year terms. The 2008 Plan expired on May 9, 2018 and all ordinary shares reserved under the 2008 Plan had been granted.

For the years ended December 31, 2018, 2017 and 2016, no stock options to purchase ordinary share were granted to any directors or employees.

A summary of stock options activity for the years ended December 31, 2018, 2017 and 2016 is as follows:

	Number of Options	Weighted Average Exercise Price USD	Weighted Average Remaining Contractual Term in years	Aggregate Intrinsic Value USD
Outstanding as of January 1, 2016	651,897	10.44	5.24	86,064,461
Granted	-	-		
Exercised	(337,406)	10.55		(35,180,367)
Forfeited and expired	-	-		
Outstanding as of December 31, 2016	314,491	10.32	3.84	30,568,083
Granted	-	-		
Exercised	(85,242)	10.18		(7,868,258)
Forfeited and expired	-	-		
Outstanding as of December 31, 2017	229,249	10.37	2.61	15,168,276
Granted	-	-		
Exercised	(121,945)	9.71		(9,137,231)
Forfeited and expired	-	-		

Outstanding as of December 31, 2018	107,304	11.13	2.28	7,570,681
Vested as of December 31, 2018	107,304	11.13	2.28	7,570,681
Exercisable as of December 31, 2018	107,304	11.13	2.28	7,570,681

For the years ended December 31, 2018, 2017 and 2016, the Company recorded stock compensation expense of nil, nil and $649,203, respectively, in general and administrative expenses.

Nonvested shares

For the years ended December 31, 2018, 2017 and 2016, nonvested shares were granted to certain directors and employees (collectively, the “Participant”). Pursuant to the nonvested share grant agreements between the Company and the Participant, the Participant will have all the rights of a shareholder with respect to the nonvested shares. The nonvested shares granted to directors generally vest in one or two years. The nonvested shares granted to employees generally vest in four years.

A summary of nonvested shares activity for the year ended December 31, 2018, 2017 and 2016 is as follow:

	Number of nonvested shares	Grant date weighted average fair value USD
Outstanding as of January 1, 2016	669,100	77.49
Granted	511,200	119.75
Vested	(255,150)	66.04
Forfeited	(12,500)	66.74
Outstanding as of December 31, 2016	912,650	104.51
Granted	356,150	89.94
Vested	(353,694)	91.32
Forfeited	(1,080)	98.20
Outstanding as of December 31, 2017	914,026	103.95
Granted	333,620	79.23
Vested	(256,830)	100.91
Forfeited	(385,425)	98.86
Outstanding as of December 31, 2018	605,391	94.85

For the years ended December 31, 2018, 2017 and 2016, the Company recorded stock compensation expense of $23,130,570, $33,903,283 and $23,756,308 in general and administrative expenses, respectively.

As of December 31, 2018, approximately $44,891,282 of stock compensation expense with respect to nonvested shares is to be recognized over weighted average period of approximately 2.32 years.

NOTE 14 – STATUTORY RESERVES

The Company's PRC subsidiaries are required to allocate at least 10% of its after tax profits as determined under generally accepted accounting principles in the PRC to its statutory surplus reserve until the reserve balance reaches 50% of respective registered capital. For the years ended December 31, 2018, 2017 and 2016, the Company's PRC subsidiaries made appropriations to the reserve fund of $18,844,626, $5,051 and $348,583, respectively. The accumulated balance of the statutory reserve as of December 31, 2018 and 2017 was $53,358,414 and $34,513,788, respectively.

NOTE 15 – FAIR VALUE MEASUREMENTS

Financial assets and liabilities of the Company primarily comprise of cash and cash equivalents, time deposits, short term investments, accounts receivable, loan receivable-current, other receivables, loan receivable-non-current, accounts payable, and other payables and accrued expenses. Management used the following methods and assumptions to estimate the fair value of financial assets and liabilities at the relevant balance sheet dates:

Fair Value of Financial Instruments

Short-term financial assets and liabilities (including cash and cash equivalents, time deposits, accounts receivable, loan receivable-current, other receivables,accounts payable, and other payables and accrued expenses) – The carrying amounts of the short-term financial assets and liabilities approximate their fair values because of the short maturity of these instruments.

Loan receivable-non-current – The carrying amounts of loan receivable approximate their fair value. The fair value is estimated using discounted cash flow analysis based on the borrower's incremental borrowing rates for similar borrowing.

Recurring Fair Value Measurements

The Company elects the fair value option to account for short term investments. The Company values its short term investments using the effective interest method with inputs of annualized rate of return provided by issuing banks. The annualized rate of return may range from 3.00% to 4.65% depending on the amount and time period invested. The Company classifies the valuation techniques that use these inputs as Level 2.

NOTE 16 – SALES

The Company's sales by product categories for the years ended December 31, 2018, 2017 and 2016 are as follows:

	For the Years Ended		
	December 31, 2018	December 31, 2017	December 31, 2016
	USD	USD	USD
Plasma products:			
Human Albumin	149,369,846	132,498,791	133,712,663
Immunoglobulin products:			
Human Immunoglobulin for Intravenous Injection	113,490,790	117,511,797	117,891,410
Other Immunoglobulin products	59,470,912	50,147,328	40,105,561
Others	31,677,439	21,049,636	17,281,111
Placenta Polypeptide	68,157,257	49,199,288	32,178,681
Biopharmaceutical products	422,166,244	370,406,840	341,169,426
Artificial Dura Mater	40,644,561	-	-
Others	4,066,764	-	-
Biomaterial products	44,711,325	-	-
Total	466,877,569	370,406,840	341,169,426

The Company's sales by channel for the years ended December 31, 2018, 2017 and 2016 are as follows:

	For the Years Ended		
	December 31, 2018	December 31, 2017	December 31, 2016
	USD	USD	USD
Plasma products:			
Distributors	174,698,620	126,381,596	120,297,097
Hospitals and inoculation centers	179,310,367	194,825,956	188,693,648
	354,008,987	321,207,552	308,990,745
Placenta Polypeptide:			
Distributors	68,157,257	49,199,288	32,178,681
Total Biopharmaceutical products	422,166,244	370,406,840	341,169,426
Biomaterial products:			
Distributors	42,717,750	-	-
Hospitals	1,993,575	-	-
Total Biomaterial products	44,711,325	-	-

Total	466,877,569	370,406,840	341,169,426

NOTE 17 – COMMITMENTS AND CONTINGENCIES

Commitments

As of December 31, 2018, commitments outstanding for operating lease approximated $2,129,052.

As of December 31, 2018, commitments outstanding for the purchase of property, plant and equipment approximated $10,238,706.

As of December 31, 2018, commitments outstanding for the purchase of plasma approximated $58,234,770.

The following table sets forth the Company's material contractual obligations as of December 31, 2018:

Contractual Obligations	Payments due by period **Less than one year**	One to two years	Two to three years	Three to four years	Four to five years
Operating lease commitment	848,731	938,551	167,378	4,095	4,095
Purchase of plasma commitment[(1)]	14,018,867	27,925,833	16,290,070	-	-
Capital commitment	9,214,835	1,023,871	-	-	-
Total	24,082,433	29,888,255	16,457,448	4,095	4,095

(1) See Note 10.

Legal proceedings

PRC Lawsuit

In June 2017, an individual brought a lawsuit against Guizhou Taibang and Guizhou Eakan Investing Corp. ("Guizhou Eakan"), an entity affiliated with one of Guizhou Taibang's former noncontrolling shareholders, requesting repayment of RMB14,560,000 (approximately $2,121,392) and related fund possession cost amounting to approximately RMB37,141,600 (approximately $5,411,531). The plaintiff alleged that he entered into an agreement with Guizhou Eakan in May 2007, according to which he provided RMB14,560,000 for Guizhou Eakan to satisfy Guizhou Taibang's loan request.

On February 28, 2018, the trial was set in Shanghai Pudong New Area People's Court. In March 2018, the court dismissed the trial for lack of jurisdiction and then transferred the trial to Shanghai No.1 Intermediate People's Court ("No.1 Court"). In January 2019, the No.1 Court held the trial and as of reporting date the ruling is still pending.

The Company does not expect the plaintiff to prevail in this trial, but the Company cannot assure that the final outcome will be in favor of Guizhou Taibang. As of December 31, 2018, Guizhou Taibang has maintained RMB14,560,000 (approximately $2,121,392) payable to Guizhou Eakan on its balance sheet.

Cayman Lawsuit

On August 27, 2018, the Company's former Chairman and CEO Mr. David (Xiaoying) Gao commenced a proceeding against the Company in the Grand Court of the Cayman Islands (the "Court"), principally seeking (a) a declaration that the private placement that was announced by the Company on August 24, 2018 was invalid and void, (b) an order requiring the Company to reverse and/or rescind any transactions carried out pursuant to the private placement, and (c) an injunction to prevent further shares from being issued by the Company to the entities participating in the private placement. The private placement was completed on September 21, 2018. On October 5, 2018, the Company made an application to the Court for dismissal of Mr. Gao's lawsuit on the ground, among others, that Mr. Gao lacked standing to pursue the claims. On December 13, 2018, the Court granted the Company's application and dismissed Mr. Gao's lawsuit. On December 21, 2018, the Court granted Mr. Gao leave to appeal its December 13, 2018 order. Pursuant to the Cayman Islands Court of Appeal Rules, Mr. Gao was required to lodge a Notice of Appeal within 14 days of being granted leave to appeal. As of reporting date, the Company has not been served with a Notice of Appeal or any further documents relating to this litigation.

NOTE 18 – EARNINGS PER SHARE

The following table sets forth the computation of basic and diluted earnings per share for the periods indicated:

	For the Years Ended		
	December 31, 2018 USD	December 31, 2017 USD	December 31, 2016 USD
Net income attributable to China Biologic Products Holdings, Inc.	128,056,302	67,943,035	104,779,307
Earnings allocated to participating nonvested shares	(3,072,170)	(2,188,633)	(2,987,429)
Net income used in basic and diluted earnings per ordinary share	124,984,132	65,754,402	101,791,878
Weighted average shares used in computing basic earnings per ordinary share	35,304,294	27,361,561	26,848,445
Diluted effect of stock option	128,665	244,062	400,699
Weighted average shares used in computing diluted earnings per ordinary share	35,432,959	27,605,623	27,249,144
Basic earnings per ordinary share	3.54	2.40	3.79
Diluted earnings per ordinary share	3.53	2.38	3.74

During the years ended December 31, 2018, 2017 and 2016, no potential ordinary shares outstanding were excluded from the calculation of diluted earnings per ordinary share.

NOTE 19 – CHINA BIOLOGIC PRODUCTS HOLDINGS, INC. (PARENT COMPANY)

The following represents condensed unconsolidated financial information of the Parent Company only:

Condensed Balance Sheets:

	December 31, 2018 USD	December 31, 2017 USD
Cash	175,133,834	4,708,801
Time deposits	430,000,000	3,000,000
Prepayments and prepaid expenses	12,140,443	87,070
Total Current Assets	617,274,277	7,795,871
Property, plant and equipment, net	88	145
Investment in and amounts due from subsidiaries	1,139,337,487	634,245,590
Total Assets	1,756,611,852	642,041,606
Other payables and accrued expenses	4,544,071	3,559,211
Income tax payable - current	2,621,655	3,223,229
Total Current Liabilities	7,165,726	6,782,440
Income tax payable - non current	26,899,038	37,067,138
Other liabilities	497,489	-
Total Liabilities	34,562,253	43,849,578
Total Shareholders' Equity	1,722,049,599	598,192,028
Total Liabilities and Shareholders' Equity	1,756,611,852	642,041,606

Condensed Statements of Comprehensive Income:

For the Years Ended		
December 31, 2018 USD	December 31, 2017 USD	December 31, 2016 USD

Equity in income of subsidiaries	132,337,339	137,099,797	124,187,590
General and administrative expenses	(16,575,019)	(28,879,890)	(19,408,283)
Other income	5,271,797	13,495	-
Earnings before income tax expense	121,034,117	108,233,402	104,779,307
Income tax (benefits)/expense	(7,022,185)	40,290,367	-
Net Income	128,056,302	67,943,035	104,779,307

Condensed Statements of Cash Flows:

	For the Years Ended		
	December 31, 2018	December 31, 2017	December 31, 2016
	USD	USD	USD
Net cash used in operating activities	(6,211,606)	(3,830,330)	(2,400,188)
Net cash used in investing activities	(404,812,895)	(3,000,000)	-
Net cash provided by financing activities	581,449,534	-	-
Net increase (decrease) in cash	170,425,033	(6,830,330)	(2,400,188)
Cash at beginning of year	4,708,801	11,539,131	13,939,319
Cash at end of year	175,133,834	4,708,801	11,539,131

NOTE 20 – CAPITAL WITHDRAWAL BY TWO FORMER NONCONTROLLING INTEREST SHAREHOLDRERS OF GUIZHOU TAIBANG

On October 26, 2016, Guizhou Taibang completed the requisite legal and administrative procedures, through which two former minority shareholders, holding a combined 15.3% equity interest in Guizhou Taibang, withdrew their respective capital contributions in Guizhou Taibang for an aggregate consideration of RMB415,000,000 (approximately $58,091,018) pursuant to an agreement dated July 31, 2016.

NOTE 21 – SEGMENT INFORMATION

The Company’s principal operating segments coincide with the types of products to be sold. The products from which revenues are derived are consistent with the reporting structure of the Company’s internal organization. The Company’s reportable segments for the year ended December 31, 2018 were biopharmaceutical products and biomaterial products as a result of the acquisition of TianXinFu completed on January 1, 2018 as described in Note 3. The Company had one operating segment, biopharmaceutical products segment, which included plasma-based products and placenta polypeptide for the years of 2017 and 2016.

The Company’s chief operating decision-maker (“CODM”) has been identified as the chief executive officer. The CODM regularly reviews financial information at the reporting segment level in order to make decisions about resources to be allocated to the segments and to assess their performance. There are no inter-segment revenue transactions and, therefore, revenues are only generated from external customers.

The accounting policies of the segments are the same as those used by the Company.

Segment information for the year ended and as of December 31, 2018 are as follows:

	Biopharmaceutical Products USD	**Biomaterial Products** USD	Total USD
Year ended December 31, 2018			
Sales	422,166,244	44,711,325	466,877,569
Cost of sales	141,683,089	5,104,147	146,787,236
Gross profit	280,483,155	39,607,178	320,090,333
Income from operations	128,980,355	17,192,396	146,172,751
Net income	131,561,108	16,406,007	147,967,115
Equity in income of an equity method investee	2,368,995	-	2,368,995
Interest income	13,704,954	1,796	13,706,750
Share-based compensation	23,130,570	-	23,130,570
Depreciation and Amortization	13,902,507	9,322,844	23,225,351
Income tax expense	15,353,208	2,682,972	18,036,180
Segment assets	2,095,996,321	348,885,628	2,444,881,949
Capital expenditures	35,245,016	1,471,374	36,716,390
Equity method investment	15,428,028	-	15,428,028

Reconciliation of segment assets to consolidated total assets:

	December 31, 2018 USD
Year ended December 31, 2018	
Total segment assets	2,444,881,949
Elimination of intercompany investment balances	(434,903,268)
Consolidated total assets	2,009,978,681

As substantially all of the Company's revenue is derived from the PRC and substantially all of the Company's long-lived assets are located in the PRC, no geographical information is presented. In addition, revenue derived from and long-lived assets located in Cayman Islands, the Company’s country of domicile, are immaterial.

NOTE 22 – SUBSEQUENT EVENTS

PRC Legal Proceedings

In January 2019, another individual who claimed to be a strategic investor of Guizhou Taibang brought a lawsuit against Guizhou Taibang, requesting to register her alleged ownership interest in Guizhou Taibang with the local Administration for Market Regulation (“AMR”, formerly known as the Administration of Industry and Commerce). The plaintiff alleged that she entered into an Equity Purchase Agreement with Guizhou Taibang in May 2007, according to which she paid RMB11,200,000 (approximately $1,631,840) to Guizhou Taibang in exchange for approximately 4.71% of Guizhou Taibang’s equity interests.

The plaintiff and Guizhou Taibang are scheduled to exchange evidence on March 20, 2019. The Company does not expect the plaintiff to prevail in this trial, but the Company cannot assure that the final outcome will be in favor of Guizhou Taibang.

Extension to Previously Announced Share Repurchase Program

On March 4, 2019, the Board of Directors of the Company approved the extension to the Company's previously authorized $100 million share repurchase program for another six months until October 31, 2019. The Company's repurchases may be made from time to time on the open market at prevailing market prices, in negotiated transactions off the market, in block trades or through other legally permissible means. The timing and extent of any purchases will depend upon market conditions, the trading price of its shares and other factors, and are subject to the restrictions relating to volume, price and timing under applicable law.